95 00338

SOURCE REDUCTION and RECYCLING ELEMENT

Prepared For The

COUNTY OF MODOC

and the

CITY OF ALTURAS

INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY

MAY 9 1995

UNIVERSITY OF CALIFORNIA

PRELIMINARY DRAFT

Submitted September, 1994

by

SOLUTION RESOURCES INCORPORATED

205 West Main Street, Suite D Grass Valley, CA 95945

(916) 477-6677 FAX 477-6680

Digitized by the Internet Archive
in 2026 with funding from
State of California and California State Library

https://archive.org/details/C124910054

95 00338

Source Reduction and Recycling Element for the County of Modoc, California

September, 1994

© 1993 -1994 The County of Modoc, California

All rights reserved. This document is the property of the County of Modoc and the City of Alturas. No part of this document may be reproduced in any manner without the permission of the County of Modoc and the City of Alturas.

Produced for the County of Modoc and the City of Alturas by Solution Resources, Inc.

Produced and printed on recycled paper.

Table of Contents

SECTION I **EXECUTIVE SUMMARY**

1.0 INTRODUCTION I-1
2.0 LEGISLATIVE INTRODUCTION I-2
3.0 DESCRIPTION OF PLANNING AREA I-3
3.1 Geographical Setting and Physical Characteristics I-3
3.2 Demographics (Population, Economy, Ed. & Recreation) I-4
4.0 SRRE PLAN GOALS & OBJECTIVES I-7
4.1 Short Term Planning Goals I-7
4.2 Medium-Term Goals I-7
5.0 EXISTING CONDITIONS I-8
5.1 Waste Disposal Facilities I-8
6.0 COMPONENT PROGRAM SUMMARIES I-10
6.1 Source Reduction Component I-10
6.2 Recycling component I-11
6.3 Composting Component I-12
6.4 Special Waste Component I-12
6.5 Education And Public Information I-13
6.6 Solid Waste Facilities Capacity Requirements I-16
6.7 Funding I-17
Revenues & Expenditures I-17
Program Costs I-17
6.8 Integration I-18

SECTION II **SOLID WASTE GENERATION ANALYSIS**

1.0 INTRODUCTION II-1
2.0 SOLID WASTE GENERATION STUDY RESULTS II-2
3.0 WASTE DISPOSAL STUDY II-3
3.1 Waste Collection & Disposal II-3
Self-Haul Waste II-5
3.2 GENERATOR SEGMENTS II-5
Residential II-5
Commercial II-5
Industrial II-6
Waste Disposal Quantities II-7
Seasonal Variations II-7
3.3 Solid Waste Disposal Composition - Modoc County II-8
Geography II-8
Demographics II-9
Solid Waste Systems II-9
3.4 Solid Waste Disposal Composition - City of Alturas II-12
Geography II-12
Demographics II-12

Solid Waste Systems II-12
4.0 SOLID WASTE DIVERSION STUDY II-15
4.1 Diversion Study Methodology II-15
4.2 Diversion Study Results II-16
Source Reduction Diversion II-16
Recycling Diversion II-16
5.0 SOLID WASTE GENERATION DATA II-18
6.0 WASTE GENERATION PROJECTIONS II-20
7.0 MATERIALS TARGETED FOR DIVERSION II-20
8.0 MATERIALS TO BE DISPOSED II-21
9.0 FUTURE DATA COLLECTION II-21

SECTION III ***EXISTING CONDITIONS***

1.0 INTRODUCTION III-1
2.0 SOURCE REDUCTION III-1
2.1 Private Waste Prevention Activities III-1
2.2 Govt. Office Waste Prevention Activities III-1
3.0 RECYCLING III-2
3.1 Recycling Activities III-2
Private Programs III-2
Commercial Generators III-3
School Programs III-3
Self-Haul Diversion (Residential & Commercial) III-3
4.0 COMPOSTING III-4
5.0 SPECIAL WASTE COMPONENT III-4
Scrap Metals III-4
C&d Debris III-4
Used Tires III-5
Bulky Items III-5
6.0 SUMMARY OF EXISTING DIVERSION BY COMPONENT III-5
8.0 PROGRAMS EXPECTED TO BE DISCONTINUED III-6

SECTION IV ***PROGRAM ALTERNATIVES***

1.0 INTRODUCTION IV-1
2.0 SOURCE REDUCTION IV-1
2.1 Rate Structure Modification IV-2
Variable Can Rate IV-2
Weight-based Rates IV-2
Volume-Bases Rates IV-2
2.2 Economic Incentives IV-3
Loans, Grants & Loan Guarantees IV-3
Deposits, Refunds, Rebates IV-4
Business Licence Fee Reduction IV-5
2.3 Regulatory Alternatives IV-6
Disposal Bans IV-6
Procurement Policies - County Government IV-7

Nonprocurement IV-7
2.4 Technical Assistance, Instructional or Promotional IV-7
Consumer Awareness IV-9
Information, Technical Assistance to Business IV-10
3.0 RECYCLING IV-11
3.1 Collection, Processing, Markets IV-11
Dropoff Collection at Transfer Stations & Landfill IV-12
Commercial Recycling IV-13
3.2 Processing Options IV-14
Manual Material Recycling Facility IV-14
Mechanical Material Recycling Facility IV-15
Buyback Recycling Center IV-16
Landuse & Planning Ordinance IV-16
4.0 COMPOSTING IV-16
4.1 Greenwaste Composting IV-17
4.2 Municipal Solid Waste Composting IV-18
5.0 SPECIAL WASTES IV-19
5.1 Bulky Wastes IV-19
5.2 Used Tire Collection IV-20
5.3 Construction & Demolition Debris IV-22
5.4 Scrap Metals IV-23

SECTION V ***SELECTED PROGRAMS***

1.0 INTRODUCTION V-1
2.0 PROGRAMS TO BE CONTINUED V-1
3.0 SOURCE REDUCTION V-1
3.1 Source Reduction Objectives V-2
3.2 Materials Targeted For Source Reduction Diversion V-2
3.3 Source Reduction Programs Selected V-3
3.4 Source Reduction Program Diversion V-5
4.0 RECYCLING V-5
4.1 Recycling Objectives V-5
4.2 Materials Targeted For Recycling Diversion V-6
4.3 Recycling Programs Selected V-6
4.4 Recycling Program Diversion V-7
Unauthorized Removal Of Recyclables V-8
4.5 Market Development V-8
4.6 End Markets V-8
5.0 COMPOSTING V-10
5.1 Composting Objectives V-10
5.2 Materials Targeted By Composting Programs V-11
5.3 Composting Programs Selected V-11
5.4 Composting Program Diversion V-11
5.5 Composting Markets V-11
6.0 SPECIAL WASTES V-12
6.1 Program Objectives V-12

6.2 Materials Targeted BySpecial Waste Programs V-12
6.3 Programs Selected V-12
6.4 Special Waste Program Diversion V-13
6.5 Composting Markets V-13
7.0 COMPONENT PROGRAM IMPLEMENTATION V-14

SECTION VI ***MONITORING AND EVALUATION***

1.0 INTRODUCTION VI-1
1.1 Methods to Monitor and Quantify VI-1
2.0 AGENCY RESPONSIBLE VI-2
3.0 MONITORING & EVALUATION REQUIREMENTS VI-2
4.0 SELECTED METHODS FOR MONITORING & EVAL. VI-2
5.0 MEASURES TO BE TAKEN IN CASE OF DIV. SHORTFALL VI-3

SECTION VII ***EDUCATION AND PUBLIC INFORMATION***

1.0 INTRODUCTION VII-1
2.0 EDUCATION AND PUBLIC INFORMATION OBJECTIVES VII-2
3.0 EXISTING CONDITIONS VII-2
3.1 Government Offices Waste Prevention Education VII-3
3.2 Education In Schools VII-3
3.3 Targeted Generators VII-3
4.0 EDUCATION PROGRAM ALTERNATIVES VII-4
4.1 Steps In Program Development VII-4
4.2 Programs To Be Considered VII-5
5.0 PROGRAM SELECTION VII-5
5.1 Programs to Target Residential Generators VII-5
5.2 Elementary and Secondary Schools Programs VII-6
5.3 Technical Assistance To Business VII-7
6.0 PROGRAM IMPLEMENTATION VII-7
7.0 PROGRAM COST & FUNDING VII-9
8.0 MONITORING AND IMPLEMENTATION VII-10
8.1 Programs Targeting Residential Generators VII10
8.2 School Programs VII10
8.3 Contingency Measures VII-10

SECTION VIII ***SOLID WASTE FACILITY CAPACITY***

1.0 INTRODUCTION VIII-1
2.0 PERMITTED SOLID WASTE DISPOSAL FACILITIES VIII-2
3.0 FACILITY NEEDS PROJECTION VIII-5
3.1 Formula Parameters VIII-6
3.2 Parameter Values VIII-6
3.3 Capacity Need Calculation VIII-7

SECTION IX ***FUNDING COMPONENT***

1.0 INTRODUCTION IX-1
2.0 CURRENT FUNDING SOURCES IX-1
2.1 Collection & Disposal System Funding IX-2

3.0 ESTIMATED PROGRAM COSTS **IX-4**
4.0 CONTINGENCY FUNDING SOURCES **IX-5**
5.0 FUTURE FUNDING SOURCES **IX-5**

SECTION X ***INTEGRATION COMPONENT***

1.0 INTRODUCTION **X-1**
1.1 Integration Component Objectives X-1
1.2 Management Practices And Component Priorities X-2
2.0 SUMMARY OF PROGRAMS **X-3**
3.0 ACHIEVEMENT OF DIVERSION MANDATES: **X-4**
4.0 INTEGRATED SCHEDULE **X-5**
4.1 Program Implementation Funding X-5
4.2 Anticipated Achievement Of Diversion Goals X-5

Appendix A ***Glossary of Terms & Definitions***
Appendix B ***Evaluation Criteria***
Appendix C ***Mono County Solid Waste Generation Study***
Appendix D ***City of Weed / Siskyiou County Solid Waste Generation Study***
Appendix E ***Diversion Study Questionnaires***
Appendix F ***Diversion Programs - Modoc County and City of Alturas***
Appendix G ***15-Year Tables - Existing Conditions***
Appendix H ***15-Year Tables - with SRRE Programs***

SECTION I

EXECUTIVE SUMMARY

1.0 INTRODUCTION

The Source Reduction and Recycling Element (SRRE) is a planning document, a set of programs that propose practices and procedures to reduce the volume and types of waste materials found in a jurisdiction's wastestream. According to AB 939, SRREprograms should be planned in the context of existing conditions - the current solid waste collection, diversion and disposal activities and programs. Programs to be implemented should work together to reduce the amount of waste a jurisdiction generates 25% by the year 1995 and 50% by the year 2000.

The waste generation study is the foundation of the SRRE, describing a jurisdiction's wastestream by material types and amounts (cardboard, aluminum cans, ash, auto parts, etc.). It indicates how the wastestream varies seasonally, and what differences in material types and amounts there are in the segment generated by residents, amounts and material types generated by businesses and, amounts and material types generated by any industries in the community. The SRRE also reports on what materials and how much is being diverted from the wastestream and by what kinds of activities, and projects out to the year 2005 the amounts of waste that will be disposed and diverted.

The use of comparable jurisdiction data was approved by staff of the California Integrated Waste Management Board (CIWMB). Mono County data was selected for the unincorporated County as the most useful basis for its waste generation and characterization, while the City of Weed in Siskiyou County was selected for the City of Alturas. Modoc County's SRRE will employ a streamlined format approved by the CIWMB which will shorten the document and eliminate the repetition typical with the standard format.

Modoc County and the City of Alturas have petitioned the California Integrated Waste Management Board for reduced AB 939 requirements, seeking reductions in short-term planning requirements to 12.4% and 13.4% respectively; and for the medium-term, 36.4% and 36.3% respectively. They have also requested permission to employ a streamlined format in the preparation of their joint Source Reduction and Recycling Element. This document responds to regulations for the preparation of the SRRE; however, its streamlined format groups information regarding all program components into sections. Chapter headings include **Existing Conditions, Program Alternatives, Programs Selected, Monitoring & Evaluation**, as well as **Waste Generation Study, Education & Public Information, Disposal Facility Capacity, Funding and Integration.**

2.0 LEGISLATIVE BACKGROUND

In response to the reality of diminishing landfill capacity in the State and a desire to manage solid waste from a more environmentally responsible perspective, the State of California enacted California's Integrated Waste Management Act of 1989 (AB 939). The law requires cities and counties to prepare and submit countywide integrated management plans. It set up a six-member board to oversee the process of plan preparation. These plans are to demonstrate how each jurisdiction will reduce its disposed wastestream by 25% by 1995 and 50% by the year 2000.

Several documents are included in the countywide integrated plan. The **Source Reduction and Recycling Element** describes the current waste management system, types and amounts of waste disposed and diverted, and evaluates and recommends specific actions and programs the jurisdiction will undertake to meet the mandated diversion requirements both in the short-term planning period (1995) and the medium-term planning period (2000).

The Countywide Integrated Waste Management Plan (CIWMP) also includes the **Household Hazardous Waste Element** and **Countywide Siting Element**, as well as the **Integrated Waste Management (Summary) Plan** document itself. In addition, AB 3001 (1992) created a new element - the **Nondisposal Facility Element** - which describes transfer stations and other solid waste management facilities that recover at least 5% of the waste they receive. AB 2494 (1992) and AB 440 (1993) have made additional changes to AB 939 including the formula for calculating total generation. Previously calculations of total waste generation were based on the formula described as "disposal + diversion = generation". Regulations changed calculation and reporting of waste to a disposal base, measuring achievement of diversion goals as decreases in amounts of waste disposed.

AB 939 planning documents include:

Source Reduction and Recycling Element	Household Hazardous Waste Element	NonDisposal Facility Element

Siting Element

Integrated Waste Management Plan

3.0 DESCRIPTION OF THE PLANNING AREA

3.1 GEOGRAPHIC SETTING AND PHYSICAL CHARACTERISTICS

Modoc County is situated in the northeast corner of the state, bordered on the north by the State of Oregon, on the east by the State of Nevada, with Lassen and Shasta Counties on its southern border, and Siskiyou County to the west. US Highway 395 cuts north to south through the eastern third of the County. The geography of the county ranges from high valleys and plateaus to rugged mountains. Eagle Peak in the Warner Mountains is at 9,934 feet; the lowest point in the County is 4,300 feet. Modoc is increasingly popular as a fishing, hunting and packing area in the warmer seasons, on both private and public hunting grounds. Winter recreation features downhill and cross-country skiing at Cedar Mountain.

The eastern third of the County is dominated by the Warner Range of the Cascades. Between the Warner Range and the Nevada desert lies Surprise Valley, characterized by three alkali lakes and hot springs in several locations. The north and west areas of the county are high plateau with rolling hills. Old lava flows and lake beds are found in that area of the northwestern portion county where Lava Beds National Monument extends into Modoc County from from Siskiyou County.

The County has warm, dry summers with temperatures reaching 100 degrees. Winter temperatures are sometimes as low as 30 degrees below zero. Precipitation ranges from less than 6 inches in Surprise Valley to 35 inches in some of the higher mountains, mostly in the form of snow.

The City of Alturas lies in the broad valley of the Pit River, near the center of the county at the junction of Highways 299 and 395 at an elevation of approximately 4,300 feet. Just outside the city limits to the south, the Modoc National Wildlife Refuge begins, a 6,283 acre sanctuary established in 1960 for the protection of migratory wasterfowl. The city is the County Seat and a government center home to National Forest Service, Bureau of Land Management, California Division of Forestry, County and city offices.

3.2 DEMOGRAPHIC PROFILE

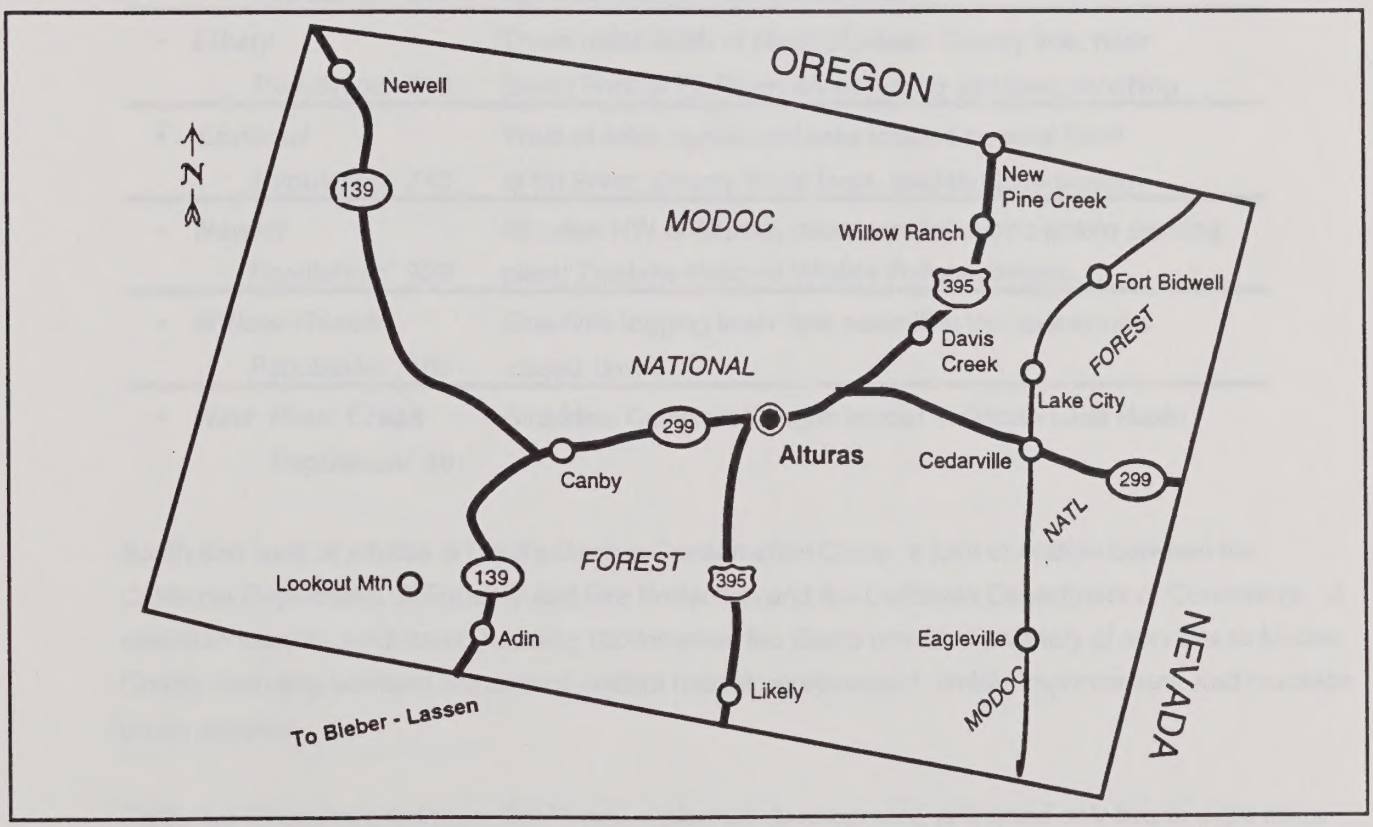
Population

Total County population by the 1990 census is 9,678 (approximately 6,447 in the unincorporated area), with 2.6 people per household in the unincorporated County. Unincorporated Modoc County's growth rate is approximately 1.4% per year. Between 1980 and 1990, the City of Alturas has grown at a yearly rate of 1.0%.

The average cost of a house in Modoc County was $47,200 in 1990. Median age in the County is 37.2 years

Single-family units	2,282
Multi-family units	117
Mobile Homes	1,042

Aside from Alturas, there are many small communities scattered throughout the County. They are listed following with brief descriptions of their locations and make-up. The map below illustrates their locations. It should be noted that all of the communities in Surprise Valley taken together do not exceed two square miles in area.



Modoc Communities

• ***Alturas*** Population: 3,262	County seat; Municipal Airport; California Pines Subdivision southwest of Alturas. Many govt offices, schools.
• ***Adin*** Population: 442	Loveness Lumber Co. & planing mill not in operation; USFS District Ranger Station, schools, park, airport, services
• ***Canby*** Population: 634	On Highway 299 west of Alturas; rural farm service center; convenience services; elementary. school; highway maint.
• ***Cedarville*** Population: 850	Center of retail trade for the Surprise Valley; hospital, schools, basic services; ag dominates economy; airport
• ***Davis Creek*** Population: 155	On U.S. 395; has General store; historic buildings
• ***Eagleville*** Population: 275	Southern-most Surprise Valley; ranching past; historic Community Hall built in 1910; airport.
• ***Fort Bidwell*** Population: 425	North end of Surprise Valley, 15 mi. from Lake City; airport; Indian reservation nearby.
• ***Lake City*** Population: 260	Between Cedarville and Fort Bidwell in Surprise Valley; agricultural area - main crop alfalfa.
• ***Likely*** Population: 218	Three miles north of Modoc/Lassen County line; near South Fork of Pit River; convenience services; ranching
• ***Lookout*** Population: 240	West of Adin; agricultural area located on west bank of Pit River; County Road Dept. maintenance station.
• ***Newell*** Population: 929	65 miles NW of Alturas; main population ctr.; potato packing plant; Tulelake National Wildlife Refuge; airport.
• ***Willow Ranch*** Population: 165	One-time logging town; first sawmill in the county now closed down.
• ***New Pine Creek*** Population: 90	Straddles California/Oregon border in Goose Lake Basin

South and west of Alturas is Devil's Garden Conservation Camp, a joint operation between the California Department of Forestry and Fire Protection and the California Department of Corrections. A minimum security adult camp housing 120 inmates, the Camp provides a variety of services to Modoc County including wildland fire control, wildlife habitat improvement, timber improvement, and roadside brush removal.

California Pines (referred to as Cal Pines), a planned development, is located only five to eight miles southwest of Alturas. Cal Pines has approximately 250 households and is served by its own Community Services District which provides garbage collection, water service. Recycling services begun in 1992 currently collect from about 5% of the households.

Economy

Modoc County has traditionally depended for its economic stability on logging, ranching and government in that order; however, the County has moved from an agricultural and timber employment base to a government and service-based economy over the last three to four decades. Government is now (1993) the largest employer in the County, employing 45% of the work force in either the federal, state, County or schools. Retail businesses provide 18.9% of the County's jobs, and the service sector 12.6%. There is a seasonal aspect to Modoc's economy, based on the remaining agriculture industry and the impact of tourism, with employment increasing during the summer months and declining in the winter. Average unemployment rate in the County in 1992 was 13.1%, up from 12.3% in 1991. According to the 1990 Census, approximately 15% of the total County population had income below the poverty level. Median household income in 1990 was $22,029 (with 2.6 persons per household).

Over 65% of the land area is owned by the federal government, administered either by the National Forest Service or the Bureau of Land Management, or the Bureau of Sport Fisheries and Wildlife. Table I-1 shows 1990 Employment by Industry according to the Economic Development Department's *Annual Planning Information for Modoc County - 1993.*

Table I-1
1991 Employment by Industry

INDUSTRY	# EMPLOYEES	%
Agriculture, forestry, fishing	300	12%
Mining, construction	50	2%
Manufacturing	100	3%
Transportation, public utilities	100	4%
Wholesale trade	125	5%
Retail trade	375	15%
Finance, insurance, real estate	50	2%
Services	375	12%
Government - Federal	275	11%
Government - State, Local &		
Education	775	31%
Total	**2,525**	

Education & Recreation

There are five public school systems in Modoc County, including seven elementaries, three intermediate schools and four high schols. There is a local campus of Lassen Community College offering associate degrees.

Both summer and winter recreation opportunities attract visitors to Modoc County. Summertime provides waterskiing on the County's many lakes, cycling the backroads, camping, fishing and packing. Winter recreation in Modoc features Nordic and Alpine skiing at Cedar Pass.

The Modoc National Forest takes in nearly two million acres (portions of Modoc, Siskiyou and Lassen counties) and provides shelter and forage for over 300 species of wildlife. The Pacific Flyway passes over the Modoc. A 258,000 acre portion in the Devil's Garden and Doublehead Ranger District is designated wild horse territory managed by the Modoc National Forest. Approximately 360 wild horses currently occupy the area.

4.0 GOALS & OBJECTIVES

Modoc County and the City of Alturas wish to minimize the costs and increase the efficiency of their solid waste management system while striving to achieve appropriate waste diversion goals. The County and City recognize and support the waste management hierarchy established by AB 939.

1) Source reduction
2) Recycling and composting
3) Environmentally safe transformation
4) Environmentally safe land disposal

4.1 SHORT-TERM PLANNING GOALS

- To achieve maximum waste diversion through cost-effective programs tailored to the rural circumstances of the County and the City of Alturas.
- To develop and implement diversion programs that complement and facilitate the transfer of waste for disposal outside the County.
- To enlist the private sector in the development and implemntation of waste diversion programs and activities, including solid waste management programs and operations.
- To enlist the support and participation of the citizens of Modoc County and the City of Alturas in solid waste management programs and policies.

4.2 MEDIUM-TERM PLANNING GOALS

- To investigate all feasible funding options available to the County in order to develop and support necessary waste management programs and policies (i.e., land use fees, solid waste assessments, tipping fees, local taxes, etc.)
- To develop cooperative administration of solid waste programs among the County, city and local community leaders.
- To investigate the potential of regional programs as cost-effective alternatives.

5.0 EXISTING CONDITIONS

This section will describe the waste collection and disposal structure and functions in Modoc County, as well as review the diversion programs and activities occuring in the base year.

5.1 WASTE DISPOSAL FACILITIES

In 1991 Modoc County was served by a total of five (5) landfills and seven (7) transfer stations. The Alturas Landfill is open four days per week, with all the other facilities being open one or two days per week. Waste from all the transfer stations is transported to Alturas Landfill once per week by Modoc County Department of Public Works personnel. A list of the facilities and amounts disposed at each in 1991 follows.

Table I-1
Modoc County & City of Alturas
1991 Tons Disposed

FACILITIES	ANNUAL TONS (APPROX)*
Landfills	
• Alturas Landfill	2,217.9
• Eagleville Landfill	29.3
• Fort Bidwell Landfill	29.1
• Lake City Landfill	28.8
• Cedarville Landfill	247.5
Transfer Stations	
• Newell	125.1
• Adin	215.6
• Lookout	217.9
• Canby	51.0
• Likely	35.8
• Willow Ranch	47.5
• Davis Creek	40.5
City of Alturas	**1,663.4 tons**
Unincorp. Modoc County	**1,622.6 tons**
Total	**3,286.0**

*Calculated at 250#/cu. yd.

Collection Services

Alturas Disposal is the primary service provider, collecting waste from both unincorporated County areas and the City of Alturas. Solid waste collection in Modoc County and the City of Alturas is not mandatory. The Department of Public Works estimates that approximately 57% of the waste disposed in the County is self-hauled to various facilities by both the residential and commercial sector. Of the waste disposed at Alturas Disposal, the Department of Public Works estimates that approximately 75% comes from the City of Alturas.

Waste generation is estimated at 1,832.1 tons for unincorporated Modoc County in 1991; 1882.3 tons for the City of Alturas. Calculation of the per person generation rate brings to attention the very low generation rate characteristic of this rural County ad City.

Uninc. Modoc = 1,832.1 tons Generated X 2000 / 6,447 / 365 days = 1.5 #/Person/Day

City of Alturas = 1,882.3 tons Generated X 2000 / 3,231 / 365 days = 3.2 #/Person/Day

One potential impact on the generation rate is from an unknown amount of backyard burning. Burning is allowed in Modoc County year-round most years, unless the California Department of Conservation denies permits because of a particularly dry season. Residents can burn from May 1st through the end of fire season (typically May 1st through October or November) only if they obtain a permit. This practice may account for a significant reduction in the flow of materials into the wastestream.

In 1991 Modoc County was served by a total of five (5) landfills and seven (7) transfer stations. The Alturas Landfill, just outside the City of Alturas, is open 8:00 a.m. to 4:00 p.m. four days per week (Saturday, Sunday, Tuesday, and Thursday), with all the other facilities being open one or two days per week, usually Saturday, Sunday sometimes alternating with Friday or Monday. There is a schedule telephone Hot Line set up for current information needs.

System Restructuring

Modoc County has moved aggressively over the past year to put itself in a better position regarding solid waste management. Many facilities, a small rate paying base, and a small volume wastestream have made significant and politically difficult changes necessary. In October 1993, the County Board of Supervisors decided on the recommendation of the Director of Public Works to take four landfills in Surprise Valley to inactive status. Subsequently, three were converted to transfer facilities. Additional cost-saving decisions have been made, including the eventual intention to transport of waste out of the County and close Alturas Landfill. The Board of Supervisors appoved an increase in parcel assessments, as well as loan funding for capital improvements went into effect July 1, 1994. In addition, the County contracted with the private franchise waste hauler to manage operations at the transfer stations and haul waste to Alturas Landfill. Much progress has been made in consolidating solid waste activity and managing it more cost-effectively. The City of Alturas will participate with the County for additional AB 939 planning documents and in implementation of diversion programs to meet the reduced diversion goals granted in the jurisdictions' joint Petition for Reduced Planning and Diversion Requirements.

6.0 COMPONENT PROGRAM SUMMARIES

6.1 SOURCE REDUCTION

More frequently referred to as waste prevention, source reduction's goal is to minimize the amount of waste generated. It is a difficult practice to measure - how do you measure something not there in the wastestream;however, it is at the top of the waste management hierarchy. Waste prevention practices are responsible for significant reductions in the amount of waste disposed, and information about them is considered to be an integral part of any jurisdiction's educational program, whether it be targeting residences, businesses or institutions. The objectives of Modoc County and the City of Alturas's waste prevention/source reduction programs will generally focus on increasing awareness of individual habits and practices, as well as those institutionalized in business and industry.

Short-Term Planning Period

- Develop a source reduction education program targeting the residential generator segment by December 1994.
- Establish a waste reduction and recycling policy Countywide by ordinance or resolution by December 1994.
- Develop and implement nonprocurement policies and waste prevention practices in County offices by December 1994.

Medium-Term Planning Period

- Develop and implement procurement policies in City and County offices which give preference for purchase of recycled and reusable products by the end of the first quarter of 1995.
- Implement residential source reduction education program by January 1995.
- Reduce yard waste in the residential wastestream by 2% through backyard composting by July 1996.
- Develop and implement a source reduction education program targeting businesses by September 1995.
- Evaluate the potential of a Countywide waste exchange, promoted through the County's newsletter.
- Develop a program to provide technical assistance to businesses, education regarding waste audits by October 1995.
- Provide information and promote commercial and institutional participation in CalMAX Waste Exchange Program.
- Establish a program to recognize exemplary waste reduction accomplished in the business community in the City of Alturas and the unincorporated County by March 1996.
- Through all source reduction/waste prevention activities, divert approximately 2% of unincorporated Modoc County's wastestream by the year 2000; divert approximately 2% of the City of Alturas's wastestream by the year 2000.

The programs selected will provide the following estimated diversion in the short-term and medium-term planning periods. Diversion by material type is described in Appendix F.

Table I-2
Source Reduction Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year SR Diversion	.3%		0.0%	
• Public Awareness/Tech.Assist. (R)	.8%	1.0%	1.0%	1.2%
• City & County Procurement Policies		.5%	.3%	.5%
• Nonprocurement Policies		.3%	.3%	.5%
Total	**.8%**	**1.8%**	**1.6%**	**2.2%**

6.2 RECYCLING

Recycling as a method of waste diversion is a three-part activity that traditionally includes separating the recyclable materials from the wastestream and collecting them, processing and finally marketing them. In selecting programs to achieve recycling diversion, the City of Alturas and Modoc County are carefully considering the existing conditions in Modoc County. The County has recently approved a parcel fee increase and long-haul contract to Lockwood, Nevada. Recycling programs selected for implementation need to be compatible with and enhance that plan. The future may include participation in the regional materials recovery facility under consideration in Lassen County. The City and County will plan recycling programs compatible with this program.

Objectives for recycling programs are described as follows:

Short-Term Objectives

- Establish a subcommittee of the Local Task Force or other public and private members to develop and help implement recycling education and information programs by November1994.
- Institute drop-off recycling facilities at (all or selected) transfer stations for residential and commercial self-haul populations by December1994.
- Work with the Planning Department in drafting an ordinance and planning guidelines for the design of recycling enclosures in residential and commercial developments by December 1994.
- Provide recycling education and public information programs promoting recycling through the County newsletter by October 1994.

Medium-Term Objectives

- Educate Modoc residents in the importance of purchasing products with recycled content and the impact of that practice on market development.
- Work with the service provider to develop collection program for office paper recycling to service school and government offices in the City of Alturas and Modoc County by July 1995.

- Evalute potential benefits of participation in regional materials recovery facility when it comes on line.
- Divert at least 20% of the Modoc County and City of Alturas wastestreams through recycling activity by the year 2000;
- Evaluate a seasonal green waste recycling program that could produce mulch for City/County landscaping or erosion control needs.

Recycling programs selected are projected to provide the following estimated diversion. Diversion by material type for recycling programs is described in Appendix F.

Table I-3
Recycling Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year Diversion	11.3%		11.6	
Drop-Off Recycling - Outlying Facilities		3.0%		
Alturas Landfill Drop-Off Recycling				3.0%
Processing Facility at Alturas Landfill		12.5%		10.3%
Total		**15.5%**		**13.3%**

6.3 COMPOSTING

Modoc County and the City of Alturas elect not to recommend local development of a composting program for the short-term or the medium-term planning period. There is a relatively small amount of green waste or yard waste currently in the wastestream that would provide feedstock for municipal green waste composting. Agricultural wastes that might provide feedstock are generally managed on the land. Both jurisdictions will instead encourage backyard composting to manage the yard waste and residential food waste components, and wood waste diversion as part of a C&D program. A seasonal green waste diversion program education program will evaluated in the medium-term, as to the feedstock available and need for mulching material or erosion control.

6.4 SPECIAL WASTE PROGRAMS

In recommending component programs, the City of Alturas and Modoc County will consider the impact of targeted materials on landfill space and the cost of long-haul transport of the jurisdictions' waste. They will also take into consideration the cost-effectiveness and availability of technology to manage the materials, and programs or activities already in existence.

Objectives of special waste programs to be implemented by the City of Alturas and Modoc County in the short- and medium-term planning period include:

Short-term Planning Period Objectives

- Establish a written contact with a qualified scrap metal dealer and continue scrap metal diversion program, centralizing collection at fewer facilities, and providing better sorting areas.

Medium-Term Planning Period Objectives

- Increase the amount charged to dispose tires at the County's landfills, as well as other special wastes by July 1995.
- Investigate the feasibility of a salvage operation at Alturas Landfill in conjunction with the long-haul operation and establishment of processing capabilities there.
- Establish a used tire management program in the County to keep tires out of landfill by July 1995.
- Reduce the amounts of inerts and wood being landfilled by 2% by December 1995.

Table I-4
Special Waste Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year Diversion	3.6%		1.8%	
Scrap Metal Collection		3.0%		3.0%
Bulky Item Recovery		1.0%		1.4%
Construction & Demolition Debris Recovery/Recycling		2.2%		2.0%
Total		**6.2%**		**6.4%**

6.5 EDUCATION AND PUBLIC INFORMATION COMPONENT

The purpose of the City of Alturas and Modoc County's Education and Pubic Information program will be to extend a significant level of information and understanding about existing programs, new opportunities to reduce, reuse and recycle, and the City and County's solid waste management policies throughout the jurisdictions. Citizens of the County and Alturas will need to be educated to the actions they can take individually and in groups to reduce their wastestream and participate in any programs the County and Alturas either implement or wish to promote. This component will combine and coordinate the information and promotion requirements of the other program selected, and formulate an integrated and timed series of activities to support them.

SHORT-TERM OBJECTIVES

The short-term objectives of the City of Alturas and Modoc County's public education program are as follows:

- To establish a volunteer committee to work with the City, County and private service provider in the development of city and countywide a information and education program;

- To promote the County and City plans for waste reduction and solid waste management through community-based meetings;
- To assess the schools' programs and help expand the school population's waste reduction awareness and diversion activities.

MEDIUM-TERM OBJECTIVES

The medium-term objectives of the City of Alturas and Modoc County's public education program are described as follows:

- To coordinate acquisition or development of promotional materials, such as pamphlets or brochures, and posters that describe how to reduce waste and promote diversion programs;
- To develop contacts in all the outlying communities of Modoc County who will commit to help communicate the waste prevention message to their neighbors;
- To develop and/or provide feature articles for the newspaper on waste reduction issues and the County's plans.
- To develop a schedule of speaking opportunities for staff and/or volunteers before community groups and clubs.
- To provide informational materials and assistance on backyard composting, and promote residential participation in the unincorporated County.
- To develop information available to businesses for wastestream evaluation and appropriate diversion activities.
- To set up a workshop on waste evaluations and assist individual businesses where requested;
- Institute a public awards and recognition program for businesses doing their part to reduce waste.

Education and Public Information Programs Planned

The education and information program must address all generator segments and devise communications strategies to reach each of them. The program will attempt not to duplicate efforts carried out by other groups or organizations, but to coordinate and enhance them. There are a wealth of materials available through the California Integrated Waste Management Board, and staff ready to assist local jurisdictions in getting the word out.

The following programs have been recommended for implementation as Modoc County's Education and Public Information program: a countywide solid waste newsletter; elementary and secondary education programs; residential education and information program based in the outlying communities; media communications plan; technical assistance and local business awareness programs.

Programs to Target Residential Generators

Community-based Workshops/Town Halls

Members of the Local Task Force who represent the outlying communities will solicit participation from others in their communities to hold community-based Town Hall programs. The Local Task Force or an education committee of the LTF could help develop the outline for a basic presentation. County staff could provide an information segment about facilities and programs planned. Community presentations would be based on the character and needs of each.

Other elements of the residential generator-targeted education and information plan include:

Media Communications Plan

A City representative, County representative or a member of the Local Task Force will develop contacts among the local media - the Modoc Record, KCNO, and Channel 6 public access television. The local public access channel broadcasts a "Reader Board" on which community announcements and events can be publicized. The County will evaluate use of materials provided in the CIWMB's Communications Kit, and develop a simple media communications plan.

Handouts, Brochures, Mailers

The County' and City of Alturas education program will provide handouts or brochures with information on recycling opportunities available in the unincorporated County, including private recyclers and County-sponsored programs at landfills, as they are developed. These handouts will also contain general information about how and why to reduce waste in addition to the where-to-recycle information. Information provided by the CIWMB Communication Kit can be incorporated with independently developed material.

Fair Booth Display

County fairs generally provide a good opportunity to present information about the community. Since the Fair is very well attended by a wide range of the Countywide population, information and education presented there will potentially reach a major portion of the residential generator segment. The booth will draw more people if it can combine entertainment and education; for instance, a puppet show that is waste reduction/diversion oriented will attract people and educate them; a magic act can entertain and bring people to the booth where brochures can be handed out or information otherwise disseminated.

Eementary and Secondary Schools Programs

The County will also need to rely on volunteers to work with the school districts and individual schools to institute an information and awareness program for the schools. Following the CIWMB contact at the district level, a series of presentations could be planned to raise the level of awareness about waste reduction and recycling activity in the schools. Content could include information about what school children can do to participate in and support existing community waste diversion programs. Volunteers will be recruited to make the presentations, and with the districts and the schools.

The County and the City of Alturas will also encourage schools to expand internal recycling programs for cans, glass and paper. Transport of materials to drop-off facilities is a consideration. The California Integrated Waste Management Board will provide technical assistance to school districts to help them implement school site waste reduction programs. It publishes a newsletter - "Reusable School News" - which provides information on what other school districts have done to implement recycling and waste reduction programs.

Technical Assistance to Business

In the medium term planning period, Modoc County will enlist volunteers from the Local Task Force and business clubs and organizations to carry out a technical assistance to business program, either providing information on how to do internal waste audits or perform an audit for them. Waste audits help businesses assess their wastestreams for the types of wastes they produce and what they can readily divert. Presentations can be made at business organization meetings and workshops scheduled to provide the business community with basic waste reduction information, specific to types of commercial generators. Volunteers or County staff will be trained to assist business in performing audits if the private sector cannot provide that capability.

6.6 SOLID WASTE FACILITY CAPACITY COMPONENT

Solid Waste Facility Capacity component must identify and describe all existing permitted solid waste landfills and transformation facilities within Modoc County and the City of Alturas. In 1991, there were five County-operated landfills in Modoc County, and seven small volume transfer stations scattered throughout the County. There are no solid waste disposal facilities in the City of Alturas. Most facilities, both transfer stations and landfills, received less than one ton of waste per day. In 1993 four of the five landfills were brought to inactive status and three were in the process of conversion to transfer stations. Plans are to phase out disposal operations at the Alturas Landfill and convert it to a long-haul transfer station by January 1995. Currently, the Alturas Landfill receives waste four days per week, with all the other transfer stations being open one or two days per week, usually Saturday and Sunday plus either Monday or Friday.

The current amount of solid waste generated, disposed and diverted within the City of Alturas in 1991 was 1882.3 tons; in unincorporated Modoc County, the amount generated was 1832.1 tons. Plans are to transport waste from the City of Alturas and Modoc County to Lockwood Landfill in Nevada starting likely in January 1995; however, disposal capacity has been calculated based on conditions existing in 1991. Calculations of the quantity of in-coming waste require a conversion from weight to volume. The conversion factor used for Modoc County was 550 lbs. per cubic yard which represents the estimated average weight of solid waste compacted at Modoc County's landfills. Calculations indicate that in the base year the City of Alturas and Modoc County had sufficient combined facility disposal capacity, taking into account a 1.4% annual growth rate for the County and a 1.0% growth rate for the City of Alturas as well as the diversion projected by SRRE programs.

Under the contract with Lockwood, Modoc is assured adequate capacity for disposal. The contract period is for a twenty year period, renewable for another twenty. Available disposal capacity is

reported by Lockwood operators at 11.79 million tons. **The facility is reported to receive up to 2,200 tons per day. Modoc County and the City of Alturas are currently disposing in one year (3,286 tons/year disposed) what Lockwood receives in about one and a half days.**

6.7 FUNDING COMPONENT

Modoc County's solid waste system is funded through a combination of gate fees at the landfills and transfer stations and countywide parcel assessment. In 1991, parcel assessment was $31.00 and gate fees were $3.00-$6.00 per cubic yard. As of July 1, 1994, the parcel assessment was raised to $45.00. Gate fees remain the same.

Revenues and Expenditures

Revenues from gate fees are approximately $120,000 per year. Parcel fees are projected to increase approximately 68%. Total annual funds available from gate and parcel fees is pojected to be $545,200. Capital costs are being incurred to develop the Alturas Transfer site and, although privatization of operations and collection from transfer stations allows cost-savings in solid waste personnel costs, those savings are offset by the costs required to speed up closure/post-closure funding for the closed landfills at a potential impact to other solid waste programs.

The City of Alturas established an exclusive franchise for waste collection by Ordinance 248. Service is not mandatory in the City of Alturas. Residents are billed by the waste hauler who pays a franchise fee to the City.

Recently, the City of Alturas and Modoc County have agreed to cooperative AB 939 planning. The City and County plans do not include establishing an Enterprise Fund at this time; however, the City will share in the planning costs. Discussions have also included program implementation responsibility in which the County would take the lead. The exact manner of program cost-sharing has not been worked out at this writing.

Through the parcel fee, every property owner in the County contributes to the support of the solid waste management system. Gate fees are user fees that target the large proportion of residents and businesses who self-haul their waste. While gate fees have not been increased in the 94-95 budget year, the costs to implement SRRE programs could be supported by increases in gate fees. The County will consider the benefits of this funding mechanisms for program funding in the early medium-term planning period.

Program Costs

Table I-6 presents the estimated costs for implementation of the component programs proposed for the short-term planning period and for ongoing planning, monitoring and evaluation. The costs are presented as estimates only and are not intended as feasibility cost estimates.

Table I-6
Modoc County and the City of Alturas
Estimated Short-Term Program Costs

Component Program	Initial Costs	Yearly Oprtng Prgrn Monitor.	Comments
RECYCLING			
• Drop-off Recycling at		$35,000-$40,000	Half of the time of one employee at
Transfer Stations (4)	$10,000 Addl bins		each facility to monitor drop-off
• Drop-Off Recycling at	(bins incl. above)	(Staff incl. above)	and prevent contamination.
Alturas Landfill			
• Processing Facility at	$300,000* for	$16,000-$ 32,000	Private operator to provide equipment
Alturas Landfill	concrete slab &		and employees (1 or 2) depending
	steel structure, etc.		on level of activity. (4 days/wk; 50 wks)
SPECIAL WASTES			
• Bulky Waste Recovery/	$ 35,000-$50,000	No addl. cost	Existing staff to monitor salvage
Salvage at Alturas Landfill	for roofed structure		activity and assist drop-off, separation.
• C & D Debris Recovery		$5,500-$8,500	Employee time to assist drop-off and
at Alturas Landfill			separation.
• Scrap Metal Recycling	No costs to City or		Existing staff to separate;
	County		offset by payment from recycler
PUBLIC ED & INFO		$1,200-$2,500	Includes the Newsletter now in distri-
			bution - staff time to prepare; ads,
Total Program Costs	**$310,000**	**$57,700-$83,000**	flyers; $.50/household countywide
*Budgeted 1994-95			

6.8 INTEGRATION COMPONENT

Rather than a set of disconnected activities, the intent of the SRRE is to present a coordinated set of programs the City of Alturas and Modoc County can implement that will function as a whole to efficiently accomplish the diversion goals. This component explains how all the program components **Source Reduction, Recycling, Composting and Special Waste** - combine to meet the reduced diversion goals approved for the City of Alturas and Modoc County in their Petition for Reduced Requirements. It summarizes the programs selected and shows the tasks to be completed to implement them. It also provides a short explanation of how program priorities between the components have been determined and of how the component programs jointly achieve the diversion mandates.

Modoc County and the City of Alturas have evaluated and selected for implementation programs that will build on existing diversion activity, will be efficient and cost-effective, and achieve the reduced diversion goal granted by the CIWMB. Programs considered have had to take into account the low volumes of recyclables present in the County and the City of Alturas, and the desire to fairly distribute the program costs for collection diversion and disposal over the entire user base. More regional solutions for diversion may be considered in the future.

The table below illustrates the ways in which each of the programs described in the Programs Selected section work together to achieve the reduced short-term and medium-term diversion rates granted Modoc County and the City of Alturas.

Table I-7
Unincorporated Modoc County - Selected Programs
Contribution to Diversion

COMPONENT/PROGRAM	EXISTING DIVERSION	SHORT-TERM (1995) Additional	MEDIUM-TERM (2000) Additional	Total
SOURCE REDUCTION PROGMS	**.3%**	**0.8%**	**1.8%**	**2.9%**
• Public Awareness/Tech. Assist. (R)		0.8%	1.8%	
• Procurement/NonProc. Policies				
RECYCLING PROGRAMS	**7.8%**	**.16%**	**15.5%**	**23.5%**
• Outlying Transfer Stations-Resid.			3.0%	
& Comml. Drop-Off Recycling				
• Processing Facility at Alturas LF			12.5%	
SPECIAL WASTE PROGRAMS	**3.6%**	**0.0%**	**6.2%**	**9.8%**
• Scrap Metal Collection			3.0%	
• Bulky Item Recovery at Alturas LF			1.0%	
• Construction & Demolition Debris			2.2%	
Recycling/Reuse Program				
TOTAL DIVERSION	**11.7%**	**10.0%**	**23.5%**	**36.2%**

Table I-8
City of Alturas Component Programs
Contribution to Diversion

COMPONENT/PROGRAM	EXISTING DIVERSION	SHORT-TERM (1995) Additional	MEDIUM-TERM (2000) Additional	Total
SOURCE REDUCTION PROGMS	**0.4%**	**1.6%**	**2.2%**	**3.8%**
• Public Awareness/Tech. Assist. (R)		1.0%	1.2%	
• Procurement/NonProc. Policies		.6%	1.0%	
RECYCLING PROGRAMS	**9.6%**	**0.2%**	**13.3%**	**23.1%**
• Outlying Transfer Stations-Resid.			3.0%	
& Comml. Drop-Off Recycling				
• Processing Facility at Alturas LF			10.3%	
SPECIAL WASTE PROGRAMS	**1.6%**	**0.0%**	**6.4%**	**8.0%**
• Scrap Metal Collection			3.0%	
• Bulky Item Recovery at Alturas LF			1.4%	
• Construction & Demolition Debris			2.0%	
Recycling/Reuse Program				
TOTAL DIVERSION*	**11.6%**	**1.8%**	**21.9%**	**35.3%**

Anticipated Achievement of Diversion Goals

Because solid waste disposal system issues have been the focus of the City and County's efforts over the past year, short-term planning period diversion goals are modest. Public awareness and information programs will take the lead, and increase participation in already existing diversion options. Attention focused on waste prevention by government procurement and nonprocurement policies will bring the City and County to their respective reduced short-term goals.

In the medium-term, the City and County's goals will be achieved through much more active participation in recycling options. From drop-off programs at transfer facilities to bulky item salvaging, C&D recovery, and scrap metal recycling, programs will focus on materials that make the long-haul transfer of waste less costly.

It will also be the responsibility of Modoc County and the City of Alturas to evaluate any regional options in the medium-term planning period. Should a regional Materials Recovery Facility come on line in the region during that timeframe, the jurisdictions will evaluate participation and whether or not it complements the long-haul transfer and the source-separation programs already in place in Modoc County.

(A complete Implementation Schedule will be included in the Final Draft as part of the Executive Summary.)

SECTION II

WASTE GENERATION STUDIES & ANALYSIS

1.0 INTRODUCTION

A city or county's waste generation study is required to include, according to Article 6.1 (14 CCR), a description of jurisdiction's wastestream - the quantities, types, and sources of materials disposed and diverted. This section will present that information concerning the unincorporated area of Modoc County and the City of Alturas in the base year 1991. It will also include 15-year projections of material types and amounts expected to be disposed, diverted and generated for each jurisdiction, should existing conditions continue unchanged. A second set of tables will describe the15-year projections for material types and amounts to be disposed, diverted and generated by each jurisdiction with planned diversion programs in place. Projections will also take into account reduced diversion requirements granted under Modoc County and the City of Alturas's petition for reduced requirements.

Modoc County will use Mono County data to characterize its wastestream, while the City of Alturas will use the City of Weed in Siskiyou County. The data has been submitted for CIWMB staff review. As required, each comparable jurisdiction's Initial Waste Generation Study and Analysis are included in Appendices C & C of this document.

2.0 SOLID WASTE GENERATION STUDY RESULTS

As generation cannot be measured directly, calculation of total waste generated is accomplished by measuring total solid waste disposed, by surveying and establishing the amount being diverted, and totaling those two sums. The calculation is demonstrated as:

Generation = Disposal + Diversion

where:

Generation	=	the total quantity of solid waste generated within the jurisdiction
Disposal	=	the total quantity of solid waste generated within the jurisdiction which is disposed in permitted solid waste facilities
Diversion	=	the total quantity of solid waste generated within the jurisdiction which is diverted from permitted solid waste disposal facilities through existing source reduction, recycling and composting programs

Determination of total solid wastes disposed and total solid wastes diverted for the City of Alturas and Modoc County have been made independently, noting the composition and quantity of materials in each wastestream, as well as generator source. Legislation subsequent to AB 939 has changed the basis for calculations, and future compliance with diversion mandates will be based on reductions in amounts disposed as measured against the base-year figure for each jurisdiction.

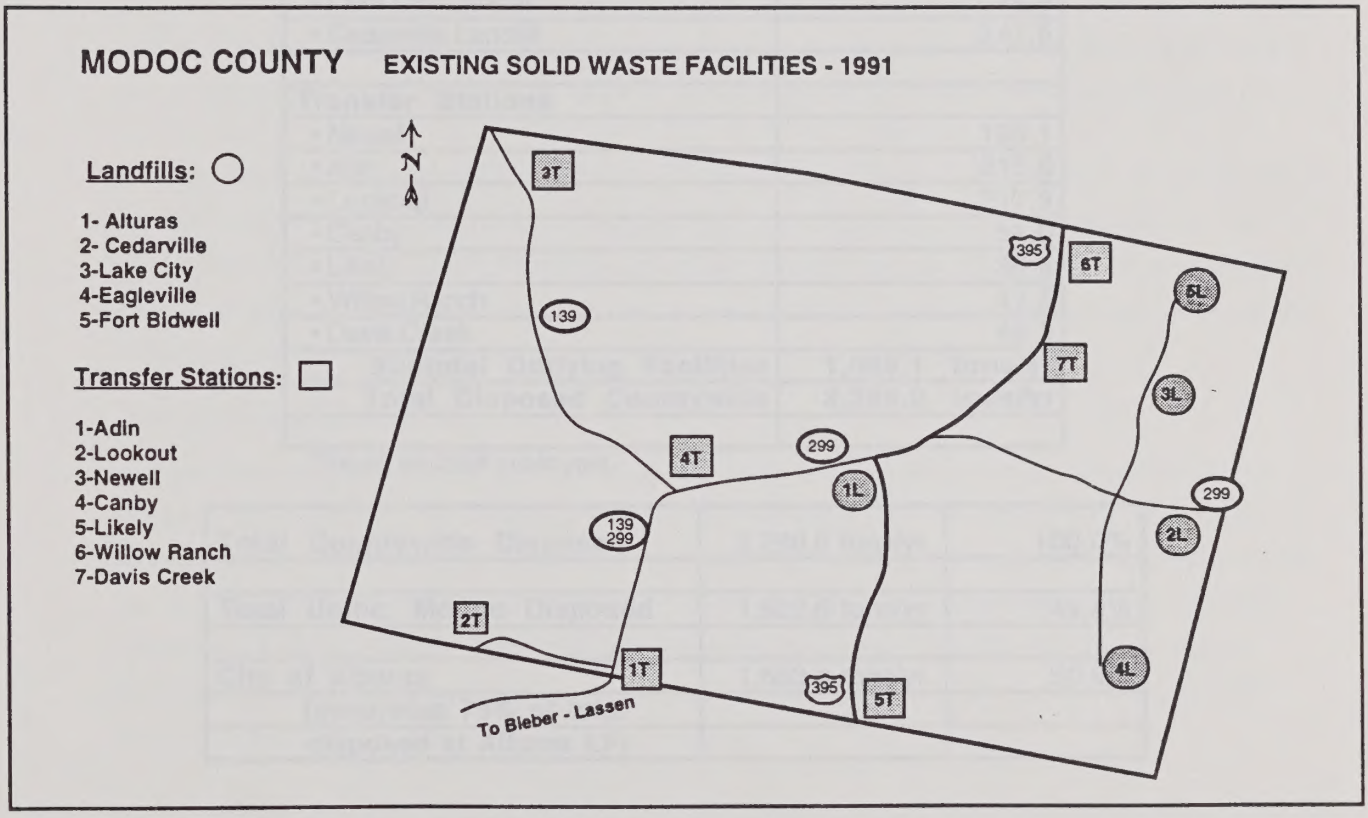
Based on a review of disposal records from all of its facilities, Modoc County Department of Public Works has identified a total of 1,832.1 tons/year generated in the unincorporated County. That total represents 1,622.6 tons disposed, and 209.5 tons diverted, for a 1991 diversion rate of 11.4%. The City of Alturas is estimated to generate 1,882.3 tons/year, comprised of 1,663.4 tons/year disposed and 218.9 tons/year diverted (11.6%).

The composition of each jurisdiction's disposed solid wastestream is represented in Tables II-7 and Table II-8. As previously stated, the Unincorporated Modoc County wastestream has been characterized by Mono County's waste generation characterization; the City of Alturas has employed City of Weed, Siskiyou County data. Discussions of comparability are included in Subsections 3.3 and 3.4 of this component.

3.0 SOLID WASTE DISPOSAL STUDY

3.1 WASTE COLLECTION & DISPOSAL

In 1991 the residents of Modoc County were served by a total of five (5) landfills and seven (7) transfer stations. The Alturas Landfill, just outside the City of Alturas, is open 8:00 a.m. to 4:00 p.m. four days per week (Saturday, Sunday, Tuesday, and Thursday), with all the other facilities being open one or two days per week, usually Saturday, Sunday sometimes alternating with Friday or Monday. There is a schedule telephone Hot Line set up for current operations information needs. In 1991, part-time employees worked two days per week as transfer station site attendants on an alternating schedule. At that time, waste from all the transfer stations was transported to Alturas Landfill once per week by Modoc County Department of Public Works personnel. In the third quarter 1994, transfer station management was contracted out to the private franchise waste hauler who also has taken charge of transporting waste from the outlying transfer stations to the Alturas Landfill. The figure below indicates locations of Modoc County facilities in 1991.



Solid waste collection in Modoc County is not mandatory. Alturas Disposal is the primary service provider, collecting waste from both the unincorporated County areas and the City of Alturas.

The County has had an agreement to pay the City of Tulelake, Siskiyou County for past use of their disposal site, located just 16 miles northwest of Newell, through contributions to a closure/post-closure fund for the facility. Currently there is no waste going to Tulelake Landfill from the County of Modoc.

The types of waste received at Modoc County's solid waste facilities include household waste (MSW), appliances, metals, wire, tires, demolition debris, wood, animals, septage (only at Alturas LF), and miscellaneous waste (not otherwise characterized). Of these categories, only household waste (MSW), demolition debris and miscellaneous wastes are disposed in a cell. Some of the remaining materials are stockpiled for collection by scrap metal dealers and other kinds of special handling.

Table II-1
Waste Disposal by Facility
1991 tons/year

FACILITIES	ANNUAL TONS
Landfills	
• Alturas Landfill	2,217.9
• Eagleville Landfill	29.3
• Fort Bidwell Landfill	29.1
• Lake City Landfill	28.8
• Cedarville Landfill	247.5
Transfer Stations	
• Newell	125.1
• Adin	215.6
• Lookout	217.9
• Canby	51.0
• Likely	35.8
• Willow Ranch	47.5
• Davis Creek	40.5
Subtotal Outlying Facilities	**1,068.1 tons/yr**
Total Disposed Countywide	**3,286.0 tons/yr**

*Based on 250# cubic yard.

Total Countywide Disposed	3,286.0 tons/yr	100.0%
Total Uninc. Modoc Disposed	1,622.6 tons/yr	49.4%
City of Alturas	1,663.4 tons/yr	50.6%
(generates 75% of total		
disposed at Alturas LF)		

Self-Haul Waste

All of the waste going to outlying transfer stations is self-hauled, either residential or commercial, accounting for approximately 66% of the total unincorporated County waste disposed. The outlying facilities are attended when they are open; however, no records were kept in the base year of customers, whether residential or commercial, or by their community of origin. Of the waste disposed at Alturas Landfill, the Department of Public Works estimates that approximately 75% comes from the City of Alturas. Of the amount disposed from the City of Alturas, it is estimated by the franchise waste hauler that 57% is self-hauled. The U.S. Forest Service hauls its own waste from campgrounds and public picnic areas to the nearest landfill or transfer station.

3.2 GENERATOR SEGMENTS

A waste generation study is required to identify all significant sources of solid waste generated by a jurisdiction. Sources of generation include: residential, commercial, industrial, other sources. Depending on the jurisdiction, the last source category may be used to identify sources of solid waste generation that cannot be categorized as residential, commercial or industrial; for example, self-haul vehicles, state or national parks and recreation areas, or construction and demolition debris when it cannot be identified as generated either by the residential sector or commercial sector exclusively.

In the case of unincorporated Modoc County and the City of Alturas, wastestreams can be identified as residential or commercial; however, the self-haul wastestream cannot be tagged with distinct identifying characteristics apart from those of residential and commercial. There is no manufacturing industry in Modoc County that contributes to the wastestream. There are relatively few commercial entities, fewer in the unincorporated County than in the City of Alturas.

Residential Generators

As has been noted elsewhere, approximately two-thirds of Modoc's population is located in the unincorporated County. Of those households, approximately 60% are situated in and around the thirteen small communities throughout the unincorporated area. Among the factors influencing the volume and content of waste from residential households are these; that residents self-haul their waste as there is no private hauler pick-up in the outlying communities; that the County allows backyard burning without permits at least six months of the year, and with permits during the fire season unless restricted by high fire danger rulings.

The City of Alturas has approximately 1,128 single family residents, while multi-family residences total 194. The private waste hauler estimates that waste hauled from the City of Alturas is 60% residential.

Commercial Generators

The unincorporated area of Modoc County has modest commercial activity of primarily service businesses. There is a lodging sector primarily centered in the Alturas area which accomodates the increasing tourist activity in the County.

The downtown shopping district along Main Street in Alturas provides local services and products, as well as lodging for travelers. No major shopping centers are located in either Alturas or the unincorporated area. There is one furniture store, one antique store, two car dealers, two hardware stores, three grocery stores (not supermarkets of the Safeway, Lucky or Albertson's size), and two mini-marts. There is one movie theatre in town and several restaurants of various sizes and menus. There is one local newspaper (printed in Oregon), and AM/FM radio stations and a local cable channel. Most of the residents of Alturas, and even more of those in the outlying communities, travel to either Reno or Klamath Falls for major shopping or entertainment.

Industrial Generators

Department of Public Works identifies no clearly distinguishable industrial wastestream. Modoc County's primary industries are agricultural (including livestock, row crops, hay/grain), timber production, and increasingly, tourism. As reported in the 1983 Countywide Solid Waste Management Plan, most of the wastes from the County's agricultural industry never find their way into the wastestream, as they are reused by being plowed back into the soil or burned in-field. There are a certain number of small dead livestock (none larger than sheep) that are accepted at all County disposal facilities (approximately 100 carcasses per year) but not disposed in the regular waste cells.

Modoc's timber production industry is not contributing to the industrial wastestream because none of the large mills that once produced significant income were in operation in the County during the base year. One small planing/finishing mill near Adin trucks all of its chips and sawdust to the parent mill in Lassen County for recycling.

Waste from the tourism industry is definitely seasonal, and includes materials from campers, backpackers, hunting and fishing activity collected in National Forest campgrounds.

Approximately 50 tons of construction and demolition debris, not including wood and wire is identified in the Modoc County and the City of Alturas wastestream. Most of it is likely concentrated at the Alturas Landfill, as the City of Alturas and its environs experience more growth than the unincorporated area. Often the inerts brought to the landfill are used as roadbase or as part of the daily cover material. Frequently, the wood scrap and slash is burned on the landfill site as well.

Table II-2
Unincorporated Disposed Wastestream - 1991
Generator Segment Contribution

Generator	Self-Haul	Hauler-Collect	Total	%
Residential	694.3 tons	166.3 tons	860.7 tons	53%
Commercial	373.8 tons	388.2 tons	762.0 tons	47%
Total	1,068.1 tons	554.5	1,622.7 tons	
	66%	**34%**		

Table II-3
City of Alturas Disposed Wastestream - 1991
Generator Segment Contribution

Generator	Self-Haul	Hauler-Collect	Total	%
Residential	568.9 tons	429.1 tons	998.0 tons	60%
Commercial	379.3 tons	286.1 tons	665.4 tons	40%
Total	948.2 tons	715.2 tons	1,663.4 tons	
	57%	43%		

Waste Disposal Quantities

Quantities of wastes disposed were taken from Modoc County Department of Public Works records for each landfill and transfer station for 1991. In this document, a conversion rate of 250 pounds per cubic yard has been used to convert cubic yards to tons, based on the industry standard for loose, uncompacted waste of 250-280 lbs/cubic yard. In the absence of data based on scale weights, this has been judged to provide a more accurate assessment of the amounts of waste disposed. Once the County and City begin long-hauling waste to the Lockwood Landfill in Nevada in January 1995, scales at that facility will give a better indication of total waste disposed.

Seasonal Variations

The amount of waste disposed in Modoc County throughout the year is affected by at least two seasonal factors. With elevations in the County 4,300 feet and higher, precipitation mostly falls in the form of snow - approximately two feet at Tulelake to more than six feet in the Lake City area of Surprise Valley. Waste disposal is lowest in December of the year. As Modoc County has gained in reputation as a vacation destination, more and more hunters, hikers and campers have come to the campgrounds and hunting areas on federal lands. Waste disposal reaches its peak generally in the summer months, July typically being the month of greatest waste generation. Another factor influencing the flow of waste is backyard burn-barrel incineration by residents and businesses. This practice is relatively unregulated, except in the fire season (May-October) when a permit is required. Depending on weather conditions, burning may be suspended for periods of time by the California Division of Forestry.

The following table based on information taken from Modoc County Department of Public Works facility disposal records illustrates the seasonality of Modoc's waste flow. Percentages represent the percent of total year disposal that month represents.

Table II-4
Seasonal Variations in Waste Flow
Modoc County Disposed - 1991

January	February	March	April	May	June
250.8	255.4	219.7	280.2	274.7	336.5
7.5%	7.6%	6.6%	8.4%	8.2%	10.1%

July	August	September	October	November	December
359.0	345.6	306.6	287.8	228.2	202.5
10.7%	10.3%	9.2%	8.6%	6.8%	6.1%

3.3 SOLID WASTE DISPOSAL COMPOSITION - MODOC COUNTY

In lieu of its own initial solid waste generation study, Modoc County has elected to use data from Mono County as a comparable jurisdiction. The City of Alturas has chosen to use the City of Weed, Siskiyou County data. This section and Section 3.4 following will describe the comparability of Modoc and Mono counties, and the City of Alturas and City of Weed in terms of geography, demographics and solid waste systems, according to Article 6.1, Sections 18722 and 18724.

Geography

Mono County and Modoc County are both located at California's eastern border with Nevada. Terrain in Modoc is characterized by mountain valleys and high desert. The eastern portion of Mono County contains high desert ranges and mountain peaks, while a portion the Sierra Nevada Mountain range forms the western boundary. The highest point in Modoc County is 9,934 feet while the highest point in Mono County is over 14,000 feet. Both counties experience warm, dry summers with temperatures ranging from 90 to 100 degrees in some areas, and cold, moderately wet winters with temperatures dropping into the -20 to -30 degree range.

Mono County is an established recreation area, with Mono Lake one of the natural wonders of California, and Mammoth Mountain Ski resort and John Muir Wilderness areas. Modoc County is developing increased attraction for its scenic beauty, fishing, hunting and camping, as well as winter sports. The greatest tourist impact is likely in the late spring through and fall. Highway 395, a major California artery, cuts north to south through both counties, providing access to its visitor attractions for out-of-state as well as California visitors.

Demographics

Both counties are rural with one primary urban concentration - the Town of Mammoth Lakes in Mono, and City of Alturas in Modoc County - and several smaller population concentrations distributed fairly widely in each county. Population, area and population density are similar, as are number of households and household size. (see Table II-5)

Solid Waste Systems

Both counties have multiple landfills which receive very small daily amounts of waste, and represent fiscal liabilities due to the rising costs of landfilling. In Mono County, the Town of Mammoth generates approximately 50% of the waste disposed. In Modoc County, Alturas generates 50.6% of the total County wastestream.

The following tables describe the direct comparabilities between Modoc County and Mono County.

Table II-5
Demographic Characteristics
Modoc & Mono Counties

	Modoc County	Mono County
Population (Unincorporated County)	6,447	5,136
Area (Unincorporated County)	4,370.5 sq. mi.	3,020.5 sq. mi.
Persons/Square Mile	1.5	2.3
Per Capita Income (1991)	$13,938	$18,805
Total Households	3,441	3,244
Single Family	2,282	2,046
Multi-Family	117	559
Mobile Homes	1,042	639
Persons per Household	2.6	2.5
Population Growth Rate	1.4%	.58%

Table II-6
Distribution of Businesses by SIC Code
Modoc & Mono County
Based on 1990 Census Data

	Modoc County	Mono County
Agricultural/Forestry/Fishing	6	5
Manufacturing	12	5
Construction	18	87
Transportation/Public Utilities	16	16
Retail Trade	76	146
Finance, Insurance, Real Estate	11	55
Services	44	147
Total Businesses Countywide	203	479

Although the number of business units in Mono County is greater than those in Modoc County, the types of businesses are similar. The tourist industry has the greatest impact on waste generation in Mono County, particularly due to the large influx of skiers to the Mammoth Mountain facilities during the winter. The material types most impacted are food waste and mixed paper categories. Adjustments have been made to Modoc's waste characterization to accomodate these differences. Table II-7 describes the characterization of Modoc's wastestream.

The complete Solid Waste Generation Study of Mono County's Source Reduction and Recycling Element is found in Appendix C.

Table II-7
Unincorporated Modoc County
Disposed Wastestream Characterization - 1991

Component	Residential	Commercial	Industrial	Agg. Total
Corr. Cardboard	7.4%	8.9%	0.0%	9.2%
Mixed Paper	13.0%	15.4%	0.0%	11.5%
Newspaper	8.3%	5.0%	0.0%	6.2%
Hi-grade, computer	0.0%	1.4%	0.0%	0.7%
Other Paper	2.3%	1.0%	0.0%	1.7%
Subtotal Paper	**31.0%**	**31.7%**	**0.0%**	**29.2%**
HDPE Containers	2.1%	1.3%	0.0%	1.7%
PET Containers	1.0%	0.3%	0.0%	0.7%
Film Plastics	4.0%	3.5%	0.0%	3.8%
Other Plastics	4.5%	5.1%	0.0%	4.5%
Subtotal Plastic	**11.6%**	**10.2%**	**0.0%**	**10.6%**
Refillable Beverage	0.0%	0.0%	0.0%	0.0%
CA Redemption	4.1%	4.6%	0.0%	4.3%
Other Recyclable	8.2%	5.5%	0.0%	6.9%
Non-recyclable Glass	0.1%	0.1%	0.0%	0.1%
Subtotal Glass	**12.4%**	**10.2%**	**0.0%**	**11.3%**
Aluminum Cans	2.2%	2.4%	0.0%	2.2%
Bi-metal Containers	0.4%	0.6%	0.0%	0.5%
Ferrous Metals	4.3%	3.7%	0.0%	4.0%
Non-ferrous Metals	0.3%	1.3%	0.0%	2.2%
White Goods	0.0%	0.0%	0.0%	0.0%
Subtotal Metal	**7.2%**	**8.0%**	0.0%	**8.9%**
Yard Waste	**5.5%**	**3.2%**	**0.0%**	**4.4%**
Food Waste	11.7%	16.3%	0.0%	13.8%
Tires & Rubber	3.3%	0.5%	0.0%	2.4%
Wood Wastes	2.3%	5.0%	0.0%	3.6%
Manure	0.6%	0.3%	0.0%	0.9%
Textiles/Leather	4.3%	2.8%	0.0%	3.6%
Misc. Organics	1.5%	1.0%	0.0%	1.3%
Subtotal Organic	**23.7%**	**25.9%**	**0.0%**	**25.5%**
Inert Solids	0.0%	2.2%	0.0%	2.7%
HHW	3.2%	1.8%	0.0%	1.5%
Subtotal Other	**3.2%**	**4.0%**	**0.0%**	**4.2%**
Ash	0.2%	1.1%	0.0%	0.6%
Auto Shred Parts	0.0%	0.9%	0.0%	0.4%
Auto Bodies	0.0%	0.0%	0.0%	0.0%
Other Special/Bulky	3.8%	1.8%	0.0%	2.9%
Other Special/Diapers	1.4%	3.0%	0.0%	1.9%
Subtotal Special	**5.4%**	**6.8%**	**0.0%**	**5.9%**
Total	**100.0%**	**100.0%**	**0.0%**	**100.0%**

3.4 SOLID WASTE DISPOSAL COMPOSTION - CITY OF ALTURAS

The City of Alturas has elected to use wastestream composition data from the City of Weed in Siskiyou County to characterize its own wastestream. This section will describe generally the similarities between the two jurisdictions, and where relevant the differences, in order to support the adjustments made to accomodate Alturas's circumstances.

Geography

Like the City of Alturas, the City of Weed in Siskiyou County is situated on a major interstate highway, a travel route to and from Oregon. Weed is approximately 40 miles from the California/Oregon border on Interstate 5 and Highway 97. The City of Alturas lies in the broad valley of the Pit River, near the center of the County at the junction of Highways 299 and 395 at approximately 4,300 feet elevation. Farms dominate the private land uses outside Alturas, while the the Modoc National Wildlife Refuge extends south/southwest from the city for 6,283 acres. The elevation in Weed is approximately 3,500 feet. While it has been distrupted by building and development, the region in which the city is located is characterized by mixed conifer/oak forests. There are still yellow pine, chaparral and oak stands within the City.

Demographics

The similarities of the two cities' demography is illustrated in Table II-8 below. Population, area, density and total households are very similar. Both cities are relatively isolated from major population centers. Both experience income drain to other areas because of the absence of major retail centers. There is modest commercial development in both cities; that in Weed particularly targeting services for travelers, such as motels and restaurants. There is an absence of industry in both cities to impact the wastestream. While Roseburg Forest Products is located physically within the City of Weed, it is officially part of the County. Waste generated by this facility is for the most part managed on site.

Both cities are undergoing fiscal strain because of the general state of the economy and the demands for City services. Alturas has recently had to replace its water delivery system.

Solid Waste Systems

Solid waste collection in the City of Alturas is not mandatory; however, in Weed there is universal residential solid waste collection. Both jurisdictions are serviced by a single franchise waste hauler. Waste disposed from the City of Weed is taken to a City-operated, County-owned landfill outside the City Limits. Alturas waste is managed at th Alturas Landfill, County-owned and operated, approximately one mile outside the City Limits.

Table II-8
Demograhic Characteristics
City of Alturas & City of Weed

	City of Alturas	City of Weed
Population	3,231	3,062
Area	2.6 sq. miles	3.0 sq. miles
Persons/Square Mile	1,242 persons/	1,021 persons/
	square mile	square mile
Total Households	1,420	1,255
Persons per Household	2.6	2.5
No.of Businesses	≈ 200	≈ 100

Adjustments have been made to the Alturas characterization to accomodate the variation in tourist-related waste generation. A portion of the Waste Generation Study from Siskiyou County including the City of Weed is found in Appendix D. The final draft of this document will contain the full study. Table II-9 describes the wastestream characterization for the City of Alturas.

Table II-9
City of Alturas
Disposed Wastestream Characterization
1991

Component	Residential	Commercial	Industrial	Agg. Total
Corr. Cardboard	5.5%	13.1%	0.0%	7.6%
Mixed Paper	9.2%	11.2%	0.0%	9.8%
Newspaper	7.9%	7.0%	0.0%	7.7%
Hi-grade, computer	0.6%	2.0%	0.0%	1.0%
Other Paper	7.2%	13.7%	0.0%	9.0%
Subtotal Paper	**30.4%**	**46.9%**	**0.0%**	**35.0%**
HDPE Containers	0.7%	0.7%	0.0%	0.7%
PET Containers	0.2%	0.1%	0.0%	0.2%
Film Plastics	2.2%	3.5%	0.0%	2.5%
Other Plastics	1.8%	1.8%	0.0%	1.8%
Subtotal Plastic	**4.9%**	**6.1%**	**0.0%**	**5.2%**
Refillable Beverage	0.0%	0.0%	0.0%	0.0%
CA Redemption	2.2%	1.5%	0.0%	2.0%
Other Recyclable	4.4%	1.5%	0.0%	3.6%
Non-recyclable Glass	0.4%	0.6%	0.0%	0.5%
Subtotal Glass	**7.0%**	**3.6%**	**0.0%**	**6.0%**
Aluminum Cans	0.6%	0.2%	0.0%	0.5%
Bi-metal Containers	0.3%	0.1%	0.0%	0.3%
Ferrous Metals	2.4%	1.8%	0.0%	2.2%
Non-ferrous Metals	0.5%	0.3%	0.0%	0.5%
White Goods	3.2%	1.9%	0.0%	2.8%
Subtotal Metal	**7.0%**	**4.4%**	**0.0%**	**6.2%**
Yard Waste	**11.2%**	**3.2%**	**0.0%**	**9.0%**
Food Waste	14.4%	9.3%	0.0%	12.9%
Tires & Rubber	2.1%	2.4%	0.0%	2.2%
Wood Wastes	7.4%	12.1%	0.0%	8.7%
Manure	0.1%	0.6%	0.0%	0.3%
Textiles/Leather	5.2%	2.5%	0.0%	4.5%
Misc. Organics	0.0%	0.0%	0.0%	0.0%
Subtotal Organic	**29.2%**	**26.9%**	**0.0%**	**28.6%**
Inert Solids/Sheetrock	3.4%	3.9%	0.0%	3.6%
HHW	0.0%	0.0%	0.0%	0.0%
Subtotal Other	**3.4%**	**3.9%**	**0.0%**	**3.6%**
Ash	1.6%	1.2%	0.0%	1.5%
Sludges	0.0%	0.0%	0.0%	0.0%
Auto Bodies	0.0%	0.0%	0.0%	0.0%
Other Special/Bulky	3.5%	2.7%	0.0%	3.3%
Other Special/Diapers	1.7%	1.1%	0.0%	1.6%
Subtotal Special	**6.9%**	**5.0%**	**0.0%**	**6.4%**
Total	**100.0%**	**100.0%**	**0.0%**	**100.0%**

4.0 SOLID WASTE DIVERSION STUDY

4.1 DIVERSION STUDY METHODOLOGY

Waste diversion studies were conducted in both the City of Alturas and the unincorporated County in order to establish the quantity and types of waste that were being diverted from disposal by the different generator segments in 1991. The best readily available and applicable data was acquired in the survey of diversion activities, relying on personal contacts with program representatives when possible. Lists were compiled from Chamber of Commerce information, County contacts, and yellow pages directories. Most sources of diversion information completed diversion surveys by phone or fax.

In the base year, there was no diversion activity being conducted by the private waste hauler in the County or in the City of Alturas; however, the County anticipates several different types of activity to be carried out by the private hauler at transfer facilities and the Alturas Landfill. Other than the scrap metals collected from the County's landfills and transfer stations by agreement with a scrap metal dealer, there were no diversion programs operated by the County in the base-year. The City of Alturas carries out no specific diversion activities on its own. Although not in operation in the base year, California Pines Community Services District is currently providing recycling services in the Cal Pines development. Approximately 5% of the 250 households in the community have subscribed.

The activity accounting for the most materials diverted is a drop-off buyback facility in Alturas. Estimates by population allocation were made of the amount of materials diverted by residents at that facility. Materials, particularly California Redemption Value containers, collected through private activities in schools or government offices have been redeemed at this facility. Care has been taken not to double-count materials.

Business entities and diversion activities surveyed to determine what diversion is applicable to each jursdiction include the following:

- Waste haulers
- Private recyclers
- California certified redemption center
- Scrap metal dealers
- Grocery stores and small markets
- Tire dealers
- Landscapers, greenhouses
- Thrift stores
- Government offices
- Schools

4.2 DIVERSION STUDY RESULTS

This section reports the results of the diversion study allocating the totals diverted according the type of program or activity when amounts could be reasonably estimated.

Source Reduction Diversion

Diversion activities which can be categorized as waste prevention or source reduction are difficult to measure. The category generally includes thrift store purchases, tire retreading, appliance repair, re-use of products or packaging materials (such as grocery bags or wooden pallets). Clothing and textiles are diverted through a church-operated thrift store and another privately operated thrift store, both of which are located in Alturas. The small amounts that could be reported were attributed to City of Alturas residents. One outlet for a major tire dealer chain reports that the company collects used tires from its stores and transports to an Oregon facility. Some are retread or reused; others are burned. Information on the volume of tires coming to that facility and the percent of retreading.from Modoc County was unavailable. Used tires at another dealer are sent to a Shasta County facility for incineration.

Although Department of Public Works staff assume there is backyard composting taking place, no way could be identified to estimate or quantify the amount of diversion that could be attributed to it. UC Coop Extension offices have literature about backyard composting;however, they do not do any workshops or training at this time. A landscaper asks some of his clients to bring their yard clippings and green waste to his facility for composting. He does composting on his site for his own use or for use on clients' properties but keeps no records of amounts of material incoming. The horticulture teacher at Modoc High School reported that he maintains three bins on campus for generating potting soil for his growing sheds. He was unable to estimate amounts, and does not add any food waste from the cafeteria at this time.

Recycling Diversion

A private recycler located in the City of Alturas was the only recycling drop-off and buyback operation reporting diversion amounts in 1991 in the County. The center has been providing recycling services since 1984. They collect and process California redemption aluminum, glass and plastic containers, recyclable glass, scrap aluminum, copper, brass and other metals, but take no paper products at this time. They do not track whether materials come from the unincorporated County area or from the City of Alturas. Estimates of diversion attributable to the unincorporated County have been made on the basis of percent of population in the City and County.

Grocery stores and neighborhood markets in the small communities scattered around the County were surveyed by telephone as to their waste diversion practices. None of them have a cardboard baler and do not handle enough volume to make it worthwhile. Most of the stores in the outlying areas said that during the burn season, they burn cardboard and paper and landfill the rest of their waste. Most are not on service and self-haul their waste to the nearest transfer station.

Since the early 1970's, a scrap metal dealer operating out of Redding has been collecting auto bodies, ferrous metal, nonferrous metals and white goods in Modoc County . As described in the Report of Disposal Site Information forms for each of its facilities, the County has historically separated these materials for collection since that time as well. Under a verbal agreement with the County Department of Public Works, the scrap metal dealer has collected the separated materials at least annually from the different Modoc facilities and transported them to its Redding site for processing. Based on landfill records of materials received at Modoc landfills and transfer stations, Department of Public Works estimates average yearly collection of approximately 100 tons of which approximately 67 tons is attributed to the unincorporated County by percent of population allocation; 33 tons to the City of Alturas. Documentation to support the scrap metal diversion claim was previously submitted with both jurisdictions' Petition for Reduced Diversion and Planning Requirements.

Table II-10
Estimated Solid Waste Diversion in1991
by Material Type

Material Type	City of Alturas	Modoc County
Corrugated cardboard (Alturas only)	114.3 tons	–
CRV glass	32.0 tons	64.1 tons
Recyclable glass	13.2 tons	26.4 tons
CRV plastic	0.9 tons	1.8 tons
Polystyrene	0.1 tons	–
CRV aluminum cans	15.2 tons	30.4 tons
Bi-metal cans	9.9 tons	19.8 tons
Ferrous	19.8 tons	42.6 tons
Nonferrous	0.0 tons	6.0 tons
White Goods	13.2 tons	18.5 tons
Organics - Textiles	.25 tons	---
Total Tons Diverted	**218.9 tons**	**209.5 tons**

Table II-11
Total Estimated Diversion

Jurisdiction	MSW Disposed	Waste Diverted	Total Generation	% Diversion
City of Alturas	1,663.4	218.9	1,882.3tons	11.6%
Modoc County	1,622.6	209.5 tons	1,832.1tons	11.4%

5.0 SOLID WASTE GENERATION DATA

Total waste generation in Unincorporated Modoc County in 1991 is estimated to be 1,832.1 tons per year; in the City of Alturas, 1,882.3 tons. The per person generation rate based on these numbers demonstrates how low overall waste generation is in both jurisdictions.

City of Alturas	1,882.3 tons X 2,000 / 3,231 / 365	= 3.0 pounds/day/person
Uninc. Modoc	1,832.1 tons X 2000 / 6,447 / 365	= 1.5 pounds/day/person

Table II-12 describes total waste generation in unincorporated Modoc County by material type for each generator segment. Table II-13 describes total waste generation in the City of Alturas by material type for each generator segment.

Table II-12
Unincorporated Modoc County
Solid Waste Generation 1991

Component	Disposal		Total	Total	
	Residential	Commercial	Disposal	Diversion	Generation
Corr. Cardboard	63.7	86.1	149.8	0.0	149.8
Mixed Paper	111.9	74.7	186.6	0.0	186.6
Newspaper	71.4	29.7	101.2	0.0	101.2
Hi-grade, computer	0.0	10.7	10.7	0.0	10.7
Other Paper	19.8	7.6	27.4	0.0	27.4
Subtotal Paper	**266.8**	**208.8**	**475.6**	**0.0**	**475.6**
HDPE Containers	18.1	9.9	28.0	0.0	28.0
PET Containers	8.6	2.3	10.9	1.8	12.6
Film Plastics	34.4	26.7	61.1	0.0	61.1
Other Plastics	35.3	38.9	74.2	0.0	74.2
Subtotal Plastic	**96.4**	**77.7**	**174.1**	**1.8**	**175.9**
Refillable Beverage	0.0	0.0	0.0	0.0	0.0
CA Redemption	35.3	35.1	70.3	64.1	134.4
Other Recyclable	70.6	41.9	112.5	26.5	138.9
Non-recyc. Glass	0.9	0.8	1.6	0.0	1.6
Subtotal Glass	**106.7**	**77.7**	**184.5**	**90.5**	**275.0**
Aluminum Cans	18.9	18.3	37.2	30.4	67.6
Bi-Metal Containers	3.4	4.6	8.0	19.8	27.8
Ferrous Metals	37.0	28.2	65.2	42.6	107.8
Non-ferrous Metals	25.8	9.5	35.3	6.0	41.3
White Goods	9.6	0.0	9.6	18.5	28.1
Subtotal Metals	**94.8**	**60.6**	**155.4**	**117.2**	**272.6**
Yard Waste	**47.3**	**24.4**	**71.7**	**0.0**	**71.7**
Food Waste	99.8	124.2	224.0	0.0	224.0
Tires & Rubber	28.4	10.3	38.7	0.0	38.7
Wood Wastes	19.8	38.1	57.9	0.0	57.9
Manure	5.2	2.3	7.5	0.0	7.5
Textiles/Leather	37.0	21.3	58.3	0.0	58.3
Misc. Organics	12.9	7.6	20.5	0.0	20.5
Subtotal Organics	**203.1**	**203.8**	**407.0**	**0.0**	**407.0**
Inert Solids	0.0	44.2	44.2	0.0	44.2
HHW	11.0	13.6	24.7	0.0	24.7
Subtotal Other	**11.0**	**57.8**	**68.9**	**0.0**	**68.9**
Ash	1.7	7.6	9.3	0.0	9.3
Auto Shred Parts	0.0	6.9	6.9	0.0	6.9
Auto Bodies	0.0	0.0	0.0	0.0	0.0
Other Special/Bulky	24.1	13.7	37.8	0.0	37.8
Other Special/Diapers	8.6	22.9	31.5	0.0	31.5
Subtotal Special	**34.4**	**51.1**	**85.5**	**0.0**	**85.5**
Total	**860.7**	**761.9**	**1,622.6**	**209.5**	**1,832.1**

6.0 WASTE GENERATION PROJECTIONS

According to Section 18722(c) of the CCR Title 14, the County is required to make estimates fifteen years into the future of amounts of waste expected to be disposed and diverted. Calculated on the base-year tonnage disposed and diverted, two sets of projections must be made:

- **Existing Conditions:** Based on an established growth rate, this table demonstrates how the wastestream will grow, based on current waste diversion practices and no additional programs implemented. Population growth rate for unincorporated Modoc County (according to the Draft 1993 Housing Element) is estimated at 1.4%. For the City of Alturas, less than 1%.
- **SRRE Conditions:** This table demonstrates the impact of the implementation of planned diversion programs on the wastestream, assuming the same growth rate as above, and taking into consideration the reduced diversion rates granted in the city and county's Petition for Reduced Diversion and Planning Requirements.

Appendices G and F contain the 15-year projections of waste disposed, diverted and generated in Modoc County and the City of Alturas for Existing Conditions and with SRRE programs respectively.

7.0 MATERIALS TARGETED FOR DIVERSION

This section is required to describe those material types currently found in the Modoc County and City of Alturas wastestream which are can be targeted for diversion through source reduction, recycling, composting and special waste programs. They are listed by material category and type:

Paper

- Corrugated cardboard
- Newspaper
- Mixed paper
- Hi-grade paper, computer paper

Plastic

- HDPE, PET plastic
- Other Plastics; film plastics

Glass

- CRV glass, recyclable glass

Metals

- Aluminum, tin cans
- Ferrous, nonferrous metals

Yard Waste

Organics

- Wood waste
- Food waste
- Clothing, leather

Special Wastes

- Inert solids, concrete
- Scrap metal
- Used tires
- White goods
- Bulky items - furniture, mattresses, leather

The materials listed above have been targeted for diversion based on these criteria:

1) The amount of the waste type estimated to be present in each jurisdiction's disposed wastestream;
2) The feasibility of establishing a diversion program that can cost-effectively divert the material from the wastestream.

Table II-13
City of Alturas
Solid Waste Generation - 1991

Component	Disposal		Total	Total	
	Residential	Commercial	Disposal	Diversion	Generation
Corr. Cardboard	54.9	87.2	142.1	114.3	256.4
Mixed Paper	91.8	74.5	166.3	0.0	166.3
Newspaper	78.8	46.6	125.4	0.0	125.4
Hi-grade, computer	6.0	21.3	27.3	0.0	27.3
Other Paper	51.9	65.5	117.4	0.0	117.4
Subtotal Paper	**283.4**	**295.0**	**578.5**	**114.3**	**692.8**
HDPE Containers	7.0	4.8	11.8	0.0	11.8
PET Containers	5.2	0.7	5.9	0.9	6.8
Film Plastics	22.0	23.3	45.2	0.0	45.2
Other Plastics	18.0	12.0	29.9	0.1	30.0
Subtotal Plastic	**52.1**	**40.7**	**92.8**	**1.0**	**93.8**
Refillable Beverage	0.0	0.0	0.0	0.0	0.0
CA Redemption	22.0	10.0	31.9	32.0	63.9
Other Recyclable	47.8	13.2	61.0	13.2	74.2
Non-recyc. Glass	4.4	4.0	8.4	0.0	8.4
Subtotal Glass	**74.2**	**27.2**	**101.4**	**45.2**	**146.6**
Aluminum Cans	9.0	4.0	13.0	15.2	28.2
Bi-Metal Containers	5.1	2.1	7.2	9.9	17.1
Ferrous Metals	24.0	12.0	35.9	19.8	55.7
Non-ferrous Metals	5.0	2.0	7.0	0.0	7.0
White Goods	31.9	12.6	44.6	13.2	57.8
Subtotal Metals	**74.9**	**32.7**	**107.7**	**58.1**	**165.8**
Yard Waste	**111.8**	**21.3**	**133.1**	**0.0**	133.1
Food Waste	143.7	61.9	205.6	0.0	205.6
Tires & Rubber	21.0	16.0	36.9	0.0	36.9
Wood Wastes	73.9	80.5	154.4	0.0	154.4
Manure	1.0	4.0	5.0	0.0	5.0
Textiles/Leather	51.9	16.2	68.1	0.3	68.4
Misc. Organics	7.8	9.3	17.1	0.0	17.1
Subtotal Organics	**299.3**	**187.9**	**487.2**	**0.3**	**487.5**
Inert Solids/Sheetrock	33.9	27.3	61.2	0.0	61.2
HHW	0.0	0.0	0.0	0.0	0.0
Subtotal Other	**33.9**	**27.3**	**61.2**	**0.0**	**61.2**
Ash	16.0	8.0	24.0	0.0	24.0
Sludges	0.0	0.0	0.0	0.0	0.0
Auto Bodies	0.0	0.0	0.0	0.0	0.0
Other Special/Bulky	35.1	17.8	53.0	0.0	53.0
Other Special/Diapers	17.4	7.3	24.7	0.0	24.7
Subtotal Special	**68.5**	**33.1**	**101.6**	**0.0**	**101.6**
Total	**998.0**	**665.3**	**1,663.4**	**218.9**	**1,882.3**

8.0 MATERIALS TO BE DISPOSED

Materials listed in this section are currently disposed and have been assessed for potential diversion based on the following criteria:

1) Do markets exist for these materials and should they be targeted for recycling?
2) Are future markets likely?
3) Can they be diverted through source reduction or waste prevention?
4) Is the material type currently nonrecyclable?
5) Is the cost to divert this material beyond the ability of the jurisdiction to manage?

Materials likely to be disposed by unincorporated Modoc County and the City of Alturas in the base-year include:

- Other plastics, composite packaging
- Other paper
- Non-recyclable glass
- Sewage sludge

As materials markets change, what can be diverted and what must be disposedwill change. The County will monitor markets in order to address any changes possible based on economic feasibility.

9.0 FUTURE DATA COLLECTION

In the future, Modoc County may need to install scales in order to better track its disposed wastestream. Since turning over operations of its transfer stations to the private hauler, closer monitoring of incoming waste is occurring. This is expected, along with the long-haul of waste to Lockwood Landfill in Nevada, to clarify the amount of the disposed wastestream for both jurisdictions. In its contract procedures, the County will also establish reporting mechanisms that require quarterly and/or yearly reports of total materials collected and processed by those handling the material wastestream or diverting materials, pursuant to regulations developed from AB 2494.

SECTION III

EXISTING CONDITIONS

1.0 INTRODUCTION

Consistent with California Integrated Waste Management Board approval, granted in Modoc County and the City of Alturas's Petition for Reduced Requirements, this section will describe the facts and circumstances pertaining to all diversion program components - source reduction, recycling, composting, and special wastes. It will describe the programs and activities that were in place in the base year both in the unincorporated county and the City of Alturas, the facilities through which these activities were carried out, and as far as they could be determined, the amount of materials diverted by each program or activity. It will also describe any programs or activities anticipated to be phased out or discontinued.

Information presented in this section was gathered primarily through interviews with schools, other governmental offices, grocery stores, landscapers/gardeners, tire dealers, and thrift stores. In many cases, those interviewed were unable to estimate amounts of materials diverted.

2.0 SOURCE REDUCTION

Waste prevention activity taking place in Modoc County during the 1991 base year was primarily private, and difficult to quantify. The County, which does not have a separate purchasing department, had no specific policies regarding waste prevention. Many departments have two-sided copiers and most departments use mugs instead of styrofoam or other paper cups.

2.1 PRIVATE WASTE PREVENTION ACTIVITIES

Few thrift or secondhand stores could be identified through the Citizens Utilities phone directory for Modoc County or the City of Alturas. In interviews with existing outlets, it was determined that some clothing and textiles are diverted but that the amounts that could be attributed to residents of the the City of Altura were approximately .3 tons/year.

One landscaper reported that his clients bring their yard clippings and green waste to his facility for composting. He does composting on his site for his own use or for use on client's property. He suggested that many people in Alturas probably composted materials in their backyards because they keep vegetable gardens. One gardener located near Lake City says she has seen clippings and trimmings in the nearby dump. UC Coop Extension offices have literature about backyard composting which they hand out on request. They do not do any workshops or training at this time.

The horticulture teacher at Modoc High School reported that he maintains three compost bins on campus for generating potting soil for his growing sheds. The compost consists mostly of recycled potting soil and green waste (grass clippings, trimmings from shrubs) from the campus. He was unable to estimate amounts. A small chipper has provided the volume-reduction needed for the tree and shrub trimmings, although it is not heavy duty enough to take very large limbs or branches. He does not add any food waste from the cafeteria at this time.

One outlet for a major tire dealer chain reports that the company collects used tires from its stores and transports to an Oregon facility. Some are retread or reused; others are burned. Information on the volume taken to that facility from Modoc County was unavailable.

2.2 GOVERNMENT OFFICE WASTE PREVENTION ACTIVITIES

Certain waste prevention activities had been mandated for all federalgovernment offices. US Forest Service offices and Bureau of Land Management offices purchase retreaded tires for some vehicles and have established procurement policies for purchasing recycled products or products with recycled content. Joint purchasing activity and distribution through the district warehouse helps maximize purchasing power and reduce waste. Until recently, recycling activity was also mandated; however, small offices have been exempted because of the difficulty of getting materials collected or to market.

3.0 RECYCLING

Collection and delivery to markets has been and continues to be a major limiting factor to recycling activity in Modoc County. Recycling collection is generally limited to California Redemption Value materials privately cycled through a facility in the City of Alturas. A certified redemption center was established in Newell at a wrecking yard in 1992. No collection is currently undertaken by the waste hauler. Most other collection is through backhaul activities carried out by private truckers servicing grocery stores.

3.1 RECYCLING ACTIVITIES

Private Programs

In the 1991 base year, the drop-off buyback facility located in the City of Alturas was taking CRV glass, CRV plastic, recyclable glass, CRV aluminum, scrap aluminum and other nonferrous metals. Most private recycling projects and activities, particularly those that collect aluminum, are processed through this facility. The operator in Newell was collecting CRV glass, aluminum and plastic (PET)

from the landfill as well as taking them from community residents and businesses. Amounts collected are reported below.

California Pines is a 250 residence community south of Alturas. The Califoria Pines Community Services District, which also provides waste collection services, established a curbside recycling program in the spring of 1992, in association with the California Pines Property Owners Association. They purchased a truck and trailer with sections for separate materials, provided bins for each household and began twice a month collection of glass, CRV plastic, and CRV aluminum. The trailer could not be off-loaded at the local recycler in Alturas so they have had to transport to Redding. Currently, only 5% of the Cal Pines households participate in the program. They reported diverting approximately 1.15 tons in 1992; .53 tons in 1993. These amounts are not included in Modoc County's base year numbers.

Commercial Generators

In addition to the waste prevention activities referenced above, U.S Forest Service and Bureau of Land Management offices in Alturas and branch offices in outlying areas have been recycling since 1990. According to representatives in the USFS headquarters, office paper and mixed paper collection in 1991 was not tracked; however, it was estimated that 70% of the material collected came from offices in the unincorporated offices. Although diversion credit cannot be allocated for these materials in base year, additional short-term diversion credit is accounted for in the 15-year projections for the appropriate jurisidiction.

Grocery stores in the outlying communities for the most part do not recycle unless they can get delivery trucks to take back cardboard and other packaging materials. The volume is low and frequency of delivery can be sporadic. During the burn season, it is usual for small businesses to burn what they can and landfill the rest. There are drop-off recycling programs planned for Adin, Newell, and Lake City transfer stations, as well as at Alturas Landfill to provide diversion opportunities for the residents and businesses in the outlying communities of Modoc County.

School Programs

The only school program is one that is carried out in several schools. Project Grad, run by parent volunteers, does fund-raising projects and events to help fund graduation activities for students. They collect aluminum cans and CRV glass for redemption. Staff at one of the elementary schools and the Alturas Middle School periodically collect aluminum cans for redemption. At the high school, collection points are scattered around the campus for collecting cans and bottles. Virtually all of these materials are processed through the private recycler in Alturas. Some of the school administrators and teachers interviewed expressed a desire for paper collection in their schools.

Self-Haul Diversion

There is no opportunity to source-separate recyclable materials at the landfills and transfer stations for those who self-haul their waste to those facilities. Any source-separated materials are taken to the drop-off/buyback center in Alturas.

4.0 COMPOSTING

There are no composting operations in place in Modoc County whose products result from the controlled biological decomposition of organic wastes, that can therefore be claimed to divert yard waste, wood waste or other compostable materials. As was discussed in the Source Reduction section, some residents may be doing backyard composting; however, the evidence is only anecdotal at this time, and it does not qualify as a composting alternative per Article 6.2, Section 18736.3.

The large amount of federally-owned land used for timber and grazing, the relatively small residential areas outside of Alturas, all indicate a low level of compostable materials (other than food waste) in the unincorporated Modoc County and City of Alturas wastestream. See *Programs Evaluated* for a further discussion of potential seasonal green waste diversion programs.

The California Correctional Facility at Devil's Garden has a large chipper/shredder that has been used to grind up limbs from trees on the high school campus. It is operated approximately 60-80 hours per year by the camp, mostly in the summer months. Sources at the camp reported the equipment could be available for use by any organization not privately owned.

5.0 SPECIAL WASTES

Scrap Metals

A scrap metal dealer out of Redding has been collecting auto bodies, ferrous metal, nonferrous metals and white goods on behalf of Modoc County since the early 1970s. Each facility permitted to receive these materials has set aside an area for stockpiling prior to collection, as described in the Report of Disposal Site Information. Under a verbal agreement with the County Department of Public Works, the scrap metal dealer has collected the separated materials at least annually from the different Modoc facilities. Prior to 1992, the County did not receive any funds for the materials collected, and records were not kept by the scrap metal dealer of exact amounts collected. The scrap metal dealer typically contacts the County Department of Public Works when his truck and baler is in the County. Department of Public Works staff then arranges to unlock gates at facilities where materials are stockpiled, as facilities are not open to the public every day. Department of Public Works estimates based on what was recorded in 1991 as having been received at County landfills are approximately 100 tons ferrous and non-ferrous metal.

Diversion credit has not been taken for scrap metals collected from machine shops, auto repair businesses or wreckers, but only for those materials which are as a matter of Public Works policy stockpiled at County facilities for recycler collection.

Construction & Demolition Debris

Demolition debris is identified separately at Modoc facilities. Amounts in 1991 averaged 48.9 tons per month, from a high point in July to almost nothing in January. While this material has not been separately characterized, woods and metals are set aside, leaving the inerts and other materials to be landfilled. This material may constitute a diversion resource which could be further separated, particularly at Alturas Landfill.

The County and the City of Alturas should evaluate the potential of a specific diversion program targeting construction and demolition debris. In view of pending long-haul plans, there may be cost benefits to not shipping out some of the constituents of this cartegory and diverting them either for fuel or other reuse.

Used Tires

Two tire dealers in the City of Alturas divert tires coming to them for either incineration or retreading. In 1991, County facilities received approximately 40 to 50 tons of tires. Plans are to separate and include in the long-haul loads going to Lockwood Landfill where tires are shredded and landfilled or incinerated.

Bulky Items - Furniture, Mattresses, Etc.

For the most part, these items have been disposed at the various Modoc facilities. Residents have salvaged on a random basis when bringing their own waste to the landfill or transfer station. The *Programs Evaluated* section will discuss potential diversion strategies for these materials, as the City of Alturas and the County are interested in lowering long haul costs by removing as many of this type from the wastestream as is practical.

6.0 SUMMARY OF EXISTING DIVERSION BY COMPONENT

Materials being diverted from the wastestream in the City of Alturas and Unincorporated Modoc County through activities in place in the base-year 1991 are listed in Table III-1 below.

Table III-1
Estimated Solid Waste Diversion 1991
All Components - by Material Type

Material Type	City of Alturas	Modoc County
Source Reduction Diversion		
Organics - Textiles	.25 tons	–
Polystyrene	0.1 tons	–
Recycling Diversion		
Corrugated cardboard (Alturas only)	114.3 tons	–
CRV glass	32.0 tons	64.1 tons
Recyclable glass	13.2 tons	26.4 tons
CRV plastic	0.9 tons	1.8 tons
CRV aluminum cans	15.2 tons	30.4 tons
Bi-metal cans	9.9 tons	19.8 tons
Special Waste Recycling		
Ferrous/Nonferrous metals	33.0 tons	67.0 tons
Total Tons Diverted	**218.9 tons**	**209.5 tons**

7.0 PROGRAMS EXPECTED TO BE DISCONTINUED

The City of Alturas and Modoc County do not anticipate any of the programs or activities described in the previous sections to be discontinued. Both jurisdictions will work with those who have initiated the activities to encourage them to continue, and coordinate additional or expanded efforts whenever economically feasible.

PROGRAM ALTERNATIVES

1.0 INTRODUCTION

According to the streamlined format approved for Modoc County and the City of Alturas's use by the California Integrated Waste Management Board in their Petition for Reduced Diversion and Planning Requirements, program alternatives for all components will be evaluated in this section, describing all source reduction alternatives, recycling alternatives, composting alternatives, and special waste program alternatives to be considered by each jurisdiction. The criteria established in regulation, according to CCR Section 18733.3 and used to evaluate each alternative are included in Appendix B. In addition, Modoc County and the City of Alturas believe each program must be evaluated for its compatibility with existing programs or activities, whether or not it is within the ability of the County and City to finance, and how it will contribute to achieving each one's diversion requirements of the short- and medium-term planning period.

2.0 SOURCE REDUCTION

At the top of the State's waste reduction hierarchy, source reduction refers specifically to methods to reduce the volume and toxicity of materials that are landfilled, or to change the habits and patterns of consumers to reduce waste at the source. Cities and counties can most effectively focus on what they can do locally to prevent increases in waste generation in their jurisdictions through education, incentives to change behavior, and regulations to prohibit undesirable practices.

CIWMB regulations require the County to evaluate four different kinds of source reduction programs: rate structure modifications, economic incentives, technical assistance or instruction and promotional alternatives, and regulatory programs.

2.1 RATE STRUCTURE MODIFICATIONS

Rate structure modifications are user fees based on the service used, varying the rate according to the level of service provided, such as number of cans of waste or weight of waste. With 66% of the unincorporated County 's and 57% of the City of Alturas's wastestream self-hauled, a variable can rate program is not likely to be implemented in either jurisdiction. Rate structure modifications in general are most effective when applied in conjunction with either mandatory service or franchise collection arrangements. Studies have cited evidence that rate structure modifications, as well as increasing source reduction activities, increase diversion rates for recycling programs and decrease amounts disposed and landfilled.

Variable Can Rate

This rate structure modification works well in communities where the majority of residents are serviced by municipal or private hauler. As residents use more or larger bins, they are required to pay more, and are thereby encouraged to reduce the amount of waste generated. This program is unlikely to be instituted in unincorporated Modoc County, nor in the City of Alturas due to its small population and high level of self-haul, and is therefore not evaluated.

Weight-Based Rates

Weight-based rate structures would require scales to be in place where waste is received. In Modoc County and the City of Alturas, the costs would be prohibitive with several transfer stations receiving waste. Because placement of scales at all facilities would be cost-prohibitive, this program will not be evaluated in this document.

Also encouraging consumers to reduce the volume of waste generated, weight-based rates could be applied to self-haulers at the landfills or transfer stations. Weight-based rates would require scales either at facilities or on board collection vehicles, a significant cost to either the County or the waste hauler, as there are no scales at Modoc County disposal facilities at this time.

Volume-Based Rates

With the large number of transfer facilities and high level of self-haul in the County, disposal rates could be imposed based on volume, charging by true volume to encourage waste reduction and recycling. Increased rates would best be imposed when diversion programs are implemented and opportunities exist for folks to reduce the amount they bring to dispose. This program would require gate attendants to carefully monitor and assess the volume of each load according to clearly defined and published standards.

Waste Reduction Effectiveness: **Low-Medium.** Programs of this type have been shown to be effective in other communities; however, they require diversion programs to be in operation when imposed. Modoc County could anticipate a 1.4% reduction in waste generated. The City of Alturas, with 1,420 households and less than 50% on service, would likely experience a 1.2% reduction in waste generated.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type, as it affects the entire wastestream equally.

Institutional Factors: **High.** As parcel assessments were recently increased, the County will likely postpone imposition of higher gate fees until the medium-term, and after diversion programs at transfer stations have been implemented to offer options for waste reduction and therefore reduced rates.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. Although not inconsistent with either jurisdiction's plans for waste reduction, such a program would likely require new ordinances

Need for New Facilities: **Low.** No new facilities would be needed to implement this program.

Ease of Implementation: **Low-Medium.** This program would more likely be implemented in the medium-term planning period contingent on diversion program implementation and further education of the citizens of the city and county.

Environmental Impacts: **Low.** No environmental impacts or potential hazards are anticipated with the implementation of this program; however, increased illegal dumping is a risk if rates go above a level perceived fair by residents. The County and City would need to increase their educational efforts to counteract these actions by citizens.

Program Flexibility: **Low.** This program very flexible in that changing rates or rate structures tend to confuse the citizens and rate-payers and discourage cooperation in the City and County's waste diversion programs as a whole.

Markets: This program enhances the availability of all recyclable materials by increasing diversion of those materials.

Program Cost: The costs of this program could include additional facility staff to more carefully monitor self-hauled waste.

2.2 ECONOMIC INCENTIVES

Local governments can provide economic incentives to businesses and individuals to encourage waste reduction practices. Potential programs include:

Loans, Grants and Loan Guarantees

Low-interest loans or grants can be made available to businesses or individuals: for example, to buy equipment that contributes to source reduction, like a two-sided copy machine, or a commercial dishwasher so that a restaurant can do away with disposable table service.

Waste Reduction Effectiveness: **Low-Medium.** It is difficult to assess the results of this type of program prior to implementation. A jurisdiction could require reports from the business to whom the loan was granted estimating materials diverted as a method of measuring effectiveness of actions taken under the program.

Impact on Wastestream: **Low.** No shift in waste generation to another material type is expected.

Institutional Factors: **High.** It is unlikely that Modoc County or the City of Alturas could be a source of funds at this time; however, staff could provide assistance to individuals or businesses to find sources of loans or grants and assist in the completion of application forms.

Consistency with Local Policies, Plans and Ordinances: **Low**. There are no policies or ordinances at this time which deal with source reduction loans or grants.

Need for New Facilities: **Low.** No new facilities would be required to implement this kind of program.

Ease of Implementation: **Low.** This program requires time-consuming administrative actvity to implement and would most likely be established in the short-term planning period.

Environmental Impacts: **Low.** No environmental impacts or potential hazards are anticipated with the implementation of this program.

Program Flexibility: **Medium.** Once implemented, changes can readily be made to this program.

Markets: Not directly applicable.

Program Cost: Primarily staff time to develop policies or ordinances, and develop sources of funds.

Deposits, Refunds and Rebates

This type of program targets specific reusable items in the wastestream (such as AB 2020 has done for beverage containers of glass and aluminum cans). Rebates can be offered as incentives to purchase reusable items such as canvas grocery bags. Deposits can be required to ensure appropriate handling of specific materials with high recycling value.

Waste Reduction Effectiveness: **Low-Medium.** On a state-wide basis, this type of program has proven to be quite effective in removing specific materials from the wastestream; however, such programs are less effective when instituted specifically locally. Would require a periodic check of the wastestream to measure effectiveness.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type.

Institutional Factors: **High.** There are few local precedents for deposits, refunds or rebates. It would take time to organize affected businesses and institutions, educate them, and motivate them to cooperate with this program.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. There are at present no policies, plans or ordinances addressing this type of program. New ordinances would be required.

Need for New Facilities: **Low.** No new facilities would be required to implement a deposit, refund or rebate program.

Ease of Implementation: **Low-Medium.** Considering the procedure for developing and implementing new ordinances, this program could likely be implemented in the medium-term planning period; however, administration is difficult on locally enacted ordinances of this type, as residents can cross jurisdictional borders to avoid paying deposits.

Environmental Impacts: **Low.** No signficant environmental impacts or potential hazards are anticipated with the implementation of this program. In practice, deposits and rebates tend to increase the value of materials that might otherwise be discarded, and keep them from being discarded.

Program Flexibility: **Low-Medium.** Deposits, refunds and rebates are not easy to adjust once in place, and would require new ordinances or revisions of existing ordinances.

Markets: This program increases the availability of specific recyclable materials.

Program Cost: The costs of this program would primarily be staff time to develop and administer the new ordinances

Business License Fees Reductions

This program could offer reduced business license fees to businesses that, for instance, agreed to do waste evaluations and implement waste reduction programs, that undertake consumer awareness or education campaigns, or that provide services to extend product life. The City of Alturas has a business license fee in place; Modoc County does not have a countywide business license fee.

Waste Reduction Effectiveness: **Low.** It is difficult to measure the effectiveness of this program until it is actually implemented and reports from businesses are received. If implemented with waste audits or evaluations, effectiveness would be increased, as business owners-operators would get first-hand knowledge of what they could do to reduce their waste. Because the commercial sector is small in the unincorporated County and City of Alturas, this program is projected to achieve only 1.0% (37.1 tons) diversion countywide.

Impact on Wastestream: **Low.** This program would not shift waste generation to another material type, as it affects the entire wastestream equally.

Institutional Factors: **Medium-High.** While there is a business license fee in Alturas, it would be necessary to develop and get Board approval of a countywide business license.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. Such a program would require new ordinances, in both Alturas and the County, and be perceived as a threat to City budgets.

Need for New Facilities: No new facilities would be required to implement this program.

Ease of Implementation: **Low.** It would be time-consuming to organize the political will in both jurisdictions. This program would likely be implemented, if at all, in the medium-term planning period.

Environmental Impacts: **Low.** No environmental impacts or potential hazards would be anticipated with the implementation of this program.

Program Flexibility: **Medium-High.** Fees could be phased in perhaps on categories of business, on the basis of volume generated, or on new businesses as they are established. If selected, this program would not be implemented until the medium-term planning period.

Markets: Not applicable.

Program Cost: The costs of this program are mostly staff administrative time to develop and administer the fee structure. Each governmental body would be responsible for setting the mechanisms in place, but carrying out waste audits or evaluations could be done by private business or trained volunteers.

2.3 REGULATORY ALTERNATIVES

The CIWMB also requires jurisdictions to evaluate ordinances or regulations that encourage waste reduction or make disposal of certain materials unlawful. Procurement policies would specify minimum content in purchasing of recycled products or products with recycled content, or reusable or repairable products. Examples of other regulatory actions counties and cities can take include bans on certain products or packaging, land use or zoning incentives that promote source reduction businesses, and requirements for waste reduction planning and reporting like annual waste audits. Bans of particular materials can be difficult and costly to enforce, especally if there are no alternative management resources for them. Whole tires are now banned from landfills in many nearby counties. Some jurisdictions ban yard waste.

Disposal Bans

It could be desirable for Modoc County and the City of Alturas to ban special wastes such as construction and demolition debris, or tires or other bulky materials that require special handling, or that represent environmental risk or economic opportunity.

Waste Reduction Effectiveness: **Low-Medium.** Although the types of materials mentioned above do not constitute a large percentage of the wastestream, bans at specific facilities wouldhave the affect of removing materials that take up a large amount of landfill space.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type.

Institutional Factors: **Medium-High.** New ordinances would have to be written and approved and enforcement procedures established. There would need to be cooperation established between the City and County Departments of Public Works, Environmental Health, and the Police and Sheriff's department, as well as federal and state government entities in order to fully implement a ban.

Consistency with Local Policies, Plans and Ordinances: **Low**. This program is consistent with both jurisdiction's plans to reduce their wastestreams; however, there are no other established policies or practices on which a disposal ban could be logically based.

Need for New Facilities: **Medium-High.** Potentially, new facilities such as concrete pads or covered storage areas could be required for diverted materials; however, these are the only types of facilities that would likely be required.

Ease of Implementation: **Low.** Changes in policies and ordinances required to implement this program will take time to process through County and City government. It is unlikely that this program could be implemented until the medium-term planning period.

Environmental Impacts: **Low-Medium.** No significant environmental impacts or potential hazards are anticipate with the implementation of this program; however, it is possible bans on some material types at some landfills could generate or increase any existing illegal dumping problem unless low-cost or no-cost options are available for diversion of the targeted materials.

Program Flexibility: **Low-Medium.** This program is less flexible than some others, because the public could become confused should what is being banned at which facilities change with any frequency.

Markets: Bans concentrate the stream of diverted materials and increase markets for those materials.

Program Cost: The primary costs of this program would be staff administrative time to generate the ordinance and guide it through the approval process. Other City and County departments would be impacted by enforcement requirements.

Procurement Policies - City/County Cooperative

There is no central purchasing department at City offices nor at the County. The City Clerk's office does the purchasing of office supplies in Alturas city government. All departments within the County government procure their own supplies and equipment. At present neither jurisdiction has written policies in place regarding purchasing preferences for recycled products, products with recycled content, or other waste prevention practices. There are two-sided copy machines in some departments at the County. The City has a duplex copier.

Waste Reduction Effectiveness: **Medium.** At the Administrative level of both the County and City, policies could be instituted specifying criteria for reusability, recyclability and/or the content of recycled products to measurably increase the amount of diversion.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type.

Institutional Factors: **Medium.** New ordinances would have to be written and approved establishing procurement policies to be implemented within each department at both the City and County level.

Consistency with Local Policies, Plans and Ordinances: **Low**. There are no policies currently in place, and a basis for cooperative purchasing does not exist. Support for ordinances or policies requiring particular purchasing policies would need to be developed both at City Hall and in the County government.

Need for New Facilities: No new facilities would be required to implement procurement policies.

Ease of Implementation: **Medium.** This program could be implemented in the medium-term planning period.

Environmental Impacts: **Low.** No significant environmental impacts or potential hazards are anticipated with the implementation of this program.

Program Flexibility: **Medium-High.** This program is flexible in that policies can be changed to focus on different products or materials types, or to be responsive to changes in technology.

Markets: This program would stimulate markets for products made with recycled materials and the materials from which they are made.

Program Cost: The costs of this program are mostly staff administrative time at both levels of government. Careful purchasing can help avoid potential higher costs for recycled content products.

Nonprocurement Policies

The City of Alturas and Modoc County want to increase the awareness of their employees and encourage waste reduction practices in the workplace. Informal internal audits could highlight opportunities for additional waste reduction, including more regular use of two-sided copiers, circulation of reports rather than distribution of unnecessary copies, ride-sharing, etc.

Waste Reduction Effectiveness: **Low- Medium.** The actual results of this program might be difficult to measure; however, it is important that the City and County and their employees take a lead in waste reduction programs they encourage others to undertake.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type, as it affects the entire wastestream equally.

Institutional Factors: **Medium.** The institutional obstacles to implementation of this program at the County level include the challenge of getting all departments to participate in such policies that might be consider more relevant to some more than others. The small size of City government and central offices location makes it more feasible there.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. This program is consistent with Modoc County's and the City of Alturas's plans to reduce their wastestreams; however, strong educational efforts will be needed at both levels of government.

Need for New Facilities: No new facilities would be required to implement nonprocurement policies.

Ease of Implementation: **Medium.** This program could be implemented in the short-term planning period; however, it is more likely to be implemented in the medium-term planning period, as it will be necessary to recruit City and County employees to take leadership roles in the program.

Environmental Impacts: **Low.** No significant environmental impacts or potential hazards are anticipated with the implementation of this program.

Program Flexibility: **Medium-High.** This program is flexible in that policies can be changed to focus on different products or materials types, or to be responsive to changes in technology.

Markets: Not applicable.

Program Cost: The costs of this program are mostly staff administrative time for program development, employee orientation and ongoing education. Reminders can be printed in employee bulletins or newsletters on a periodic basis at no additional cost, or posters placed on bulletin boards in breakrooms or lunchrooms where employees gather.

2.4 TECHNICAL ASSISTANCE, INSTRUCTIONAL OR PROMOTIONAL PROGRAMS

There are a variety of programs in this category that target different generators. Waste audits might be instituted to help the commercial sector assess its wastestream and offer information on ways to reduce. Speakers' Bureaus can help inform commercial generators and residents as well. Backyard composting workshops and "how-to" information on what can be recycled where in Modoc County would focus on the residential generator. Other kinds of promotion or education could be public forums or seminars. There is a Children's Fair every year in spring or early summer. It is a well-attended event which would provide many educational opportunities and practical demonstrations. The County

Fair would also provide a wide audience for information and awareness activities. The County Department of Public Works has recently begun a newsletter, initially targeting the Local Task Force members, but intended for wider distribution.

Modoc County and the City of Alturas could also consider in this category activities such as community waste reduction awards which offer public recognition to those businesses or individuals with exemplary waste reduction programs or ongoing activities.

The California Integrated Waste Management Board has made available to counties and cities a Communications Kit with sample letters, camera-ready advertising, brochures, audio cassette tapes and video tapes, including a composting video. This could provide the foundation for the City's County's plans. In addition, the CIWMB has developed an Education Compendium which reviews and evaluates teaching units and materials for various aspects of waste reduction and recycling education in schools, and how to order the materials.

Consumer Awareness, Information and Technical Assistance

A basic level of information regarding source reduction practices, how to buy to reduce waste, what is recyclable in the City of Alturas and Modoc County and where, as well as backyard composting information and workshops could be included in this program category. The outlying communities in Modoc could provide the organizational framework for informational events perhaps centering around the schools. Volunteers on the Local Task Force could develop and present the events, while the schools could be the organization through which information is distributed to families.

Waste Reduction Effectiveness: **Low-Medium.** It is difficult to measure the effectiveness of this program, as it attempts to measure what is not generated. This program or series of programs would target a broad cross-section of the wastestream in both jurisdictions, most impacting paper (hi-grade and mixed paper) and yard waste.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type, as it affects the entire wastestream equally.

Institutional Factors: **Medium-High.** Department of Public Works has limited staff to dedicate to education at this time. It will be necessary to find volunteers to help carry out this program.

Consistency with Local Policies, Plans and Ordinances: **Medium-High**. This program is consistent with Modoc County's intention to reduce its wastestream.

Need for New Facilities: No new facilities would be required to implement this program.

Ease of Implementation: **Medium.** This program will be implemented in the short-term planning period if staff and volunteer support can be provided.

Environmental Impacts: **Low.** No environmental impacts or potential hazards are anticipated with the implementation of this program.

Program Flexibility: **High.** This type of program is highly flexible and can be modified as needed according to local circumstances and type of information required.

Markets: Not applicable.

Program Cost: The costs of this program include significant staff administrative time to organize, and cost to acquire materials.

Information, Awareness, Technical Assistance to Business

Businesses in the City of Alturas and the outlying communities of the unincorporated County need to be informed regarding the need for waste reduction in the commercial sector. Volunteers and Local Task Force members could provide technical and informational assistance to businesses describing how to assess a business wastestream for reduction opportunities. Tracking what comes in and what goes out can help a business plan to operate less wastefully. Printed information, workshops and a speakers bureau would get the information out and raise the level of awareness of this important generator category. The California Integrated Waste Management Board has produced materials specifically to educate business generators.

Waste Reduction Effectiveness: **Medium-High.** While it is clear that programs which increase the knowledge and awareness of commercial entities can be effective in reducing waste, it is difficult to measure until the programs are in place and being monitored for their effectiveness.

Impact on Wastestream: **Low.** This program should not shift waste generation to another material type, as it affects the entire wastestream equally.

Institutional Factors: **Low-Medium.** The primary obstacle to this program's implementation is staff availability. Strong volunteer support will be needed to implement this program.

Consistency with Local Policies, Plans and Ordinances: **Medium-High.** This program is entirely consistent with the County' s and City of Alturas's plans to reduce its wastestream.

Need for New Facilities: No new facilities would be required to implement this program.

Ease of Implementation: **High.** This program will begin in the medium-term planning period.

Environmental Impacts: **Low.** No environmental impacts or potential hazards are anticipated with the implementation of this program.

Program Flexibility: **Medium-High.** This program is flexible in that program content and schedule can be adjusted according to the needs and numbers of the business types being served.

Markets: This program would potentially increase the amounts of some material types to be marketed.

Program Cost: The costs of this program are due mostly to the amount of staff administrative time and the cost of information materials. (*See the Education and Public Information* component.)

3.0 RECYCLING

The process of recycling is usually described as a **series of actions** designed to divert materials from a community's wastestream; **separation**, **collection**, **processing** and **marketing** of materials. All of these activities need to be supported by promotion and education to stimulate participation. "Closing the Loop" by buying products with recycled content is the final aspect of recycling programs which, as markets come under increasing pressure from over-supply of materials, needs to receive additional education and emphasis.

Separating recyclable materials from the solid wastestream is generally accomplished in one of two ways:

- **Source separation:** Materials are separated at the source of generation, i.e., in the home or business, and collected or dropped off. Separation can be done into separate containers at the curb or commingled in a "blue bag" or single container.
- **Mixed Waste Recovery:** This process does not require separation of recyclables from the wastestream, as the entire wastestream is processed through a manual or mechanical material recovery facility where the recyclable materials are separated out.

3.1 COLLECTION, PROCESSING & MARKETS

The widely disbursed population of the unincorporated County, and high levels of self-hauled waste makes effective collection of source-separated recyclables a challenge. The outlying transfer stations could accomodate drop-off recycling sites, preferably manned, from which recyclables could be collected by a service provider.

Another alternative is not to source-separate materials, but transport all waste from transfer stations and landfills to a central processing facility where the recyclables can be diverted and processed for marketing. Modoc County and the City of Alturas are aware of regional plans for such a facility and will be evaluating the cost-effectiveness of participation in the medium-term planning period.

With high levels of self-hauling in both the City of Alturas and the unincorporated County, drop-off recycling facilities at the outlying transfer stations would likely serve both commercial and residential generators.

A major obstacle to successful recycling programs is in the accessibility of markets. Distance one-way to intermediate markets is shown following.

Sacramento, CA	310 miles
Redding, CA	144 miles
Reno, NV	190 miles
Klamath Falls, OR	98 miles

The low volume of materials, and need for processing capabilities in the community combine to make recycling very costly and local markets difficult to develop. Waste haulers may combine loads of

recycled materials to improve the economic viability of transport to markets. Potential participation in regional processing facilities now under consideration in neighboring Modoc County would also mitigate storage and transport problems for Modoc County and the City of Alturas.

The separation and collection alternatives which must be evaluated are described as follows: curbside and mobile collection systems; drop-off recycling center; buyback recycling centers. Modoc County and the City of Alturas have requested permission of the CIWMB in their Petition for Reduced Requirements not to evaluate curbside recycling due to low population density of self-hauled waste in both jurisdictions. Processing and handling alternatives include manual material recovery operations, mechanized material recovery operations, and salvage at solid waste facilities. Evaluation of separation and collection programs likely to be implemented in the City of Alturas and Modoc County follows.

Drop-Off Collection at Transfer Stations and Alturas Landfill

Modoc County plans to establish drop-off recycling at four existing transfer stations, manned or monitored by employees of the private waste hauler. These facilities would be available on the same schedule as existing waste disposal transfer facilities. It would increase recycling by self-haulers in the County and increase the flow of materials. Education will be required, as well as increased monitoring to reduce contamination of materials. Drop-off collection could include the following materials: CRV glass, aluminum and plastic, recyclable glass. Over time, the County and the private hauler could evaluate adding materials such as cardboard, newspaper and mixed paper.

An additional drop-off site will be developed at Alturas Landfill to accomodate the high percentage of Alturas residents and businesses who self-haul their waste.

Waste Reduction Effectiveness: **Low-Medium.** A drop-off program at Modoc County transfer stations could divert appproximately 3.0%(54.9 tons/yr) of the unincorporated County wastestream; drop-off at Alturas Landfill could divert 3.0 %(56.9 tons/yr) of the City's wastestream. Self-hauled waste (both commercial and residential) represents approximately 66% of Modoc's disposed wastestream and 57% of the City of Alturas's wastestream.

Impact on Wastestream: No shift in waste generation is expected.

Institutional Factors: **Low.** The County is negotiating with the private waste hauler for collection, types of materials to be collected, and facility staffing.

Consistency with Local Policies, Plans and Ordinances: **High**. This program is consistent with local plans and policies.

Need for New Facilities: **Medium-High.** New facilities, likely in the form of graded and prepared drop-off areas and bins, will be required to implement this kind of program. Additional materials storage may be needed at Alturas Landfill.

Ease of Implementation: **Low-Medium.** This program was planned to be implemented in the short-term planning period; however, delay in planned construction at Alturas Landfill makes it more likely to be implemented in the medium-term planning period.

Environmental Impacts: **Low.** No significant environmental impacts or potential hazards are anticipated with the implementation of this program; however, additional measures may need to be taken to prevent vectors and litter at collection sites.

Program Flexibility: **Medium-High.** Changes to drop-off programs are relatively easy to implement.

Markets: Contamination of recyclables with waste materials can be a problem with drop-off sites. Markets would be jeopardized by inferior material quality.

Program Cost: Additional bin costs and grading are estimated at $2,500 for each of the (4) outlying facilities. The volume-reduction/processing facility at Alturas Landfill is project to cost approximately $300,000.

Commercial Recycling Program

This program would typically include collection of corrugated cardboard and glass from bars and restaurants; and office paper (computer and hi-grade) from schools and offices. Currently approximately 114.3 tons of cardboard is recycled through baling and backhaul by grocery sores in Alturas. With drop-off programs at transfer stations to include commercial self-haul, additional commercial programs may not be needed to address corrugated cardboard. City efforts could focus on office paper recovery.

Waste Reduction Effectiveness: **Low-Medium.** This type of program relies heavily on education and promotion of participation within organizations or businesses to succeed. Commercial segment generation in the unincorporated County is approximately 762.0 tons/year; in the City of Alturas the commercial segment contributes 665.4 tons/year. Potential diversion in unincorporated Modoc County of this type of program would likely divert up to 2% of each one's wastestream or approximately 36.6 tons/year for the unincorporated County and 37.6 tons/year for the City of Alturas.

Impact on Wastestream: No shift in waste generation is expected.

Institutional Factors: **Medium-High.** New contracts or extensions with waste haulers would need to be negotiated.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. While consistent with the County's intention to reduce the wastestream, this program would require considerable negotiation with a waste hauler or haulers to include this activity in their contract.

Need for New Facilities: **Medium.** Assuming participation by Modoc County and the City of Alturas in regional processing facilities, this program would not require development of new facilities.

Ease of Implementation: **Low-Medium.** This program would require negotiation with waste hauler(s) and would likely fit into the medium-term planning period. It would also require education of and promotion to commercial generators to be successful.

Environmental Impacts: **Low.** No significant environmental impacts or potential hazards are anticipated with the implementation of this program; however, it would result in some additional emissions from trucks and transfer vehicles.

Program Flexibility: **Medium-High.** This program has a relatively high degree of flexibility in that material types can be added or deleted, and new businesses or institutions can be added to routes.

Markets: Markets are available for all the materials targeted by this program, although transport to market is an issue.

Program Cost: Costs to the private sector could include new container, baling or processing equipment, and additional staff and/or collection vehicles. *(?Get numbers from Alturas Disposal)*

3.2 PROCESSING OPTIONS

Manual Material Recovery Facility

The volume of materials available and the County's remote location make the development of its own material recovery facility an unlikely option; however, an intermediate processing facility or volume-reduction operation designed for Modoc County's and the City of Alturas's low volume wastream could help divert more recyclable materials and consolidate for long-haul transport.

In the medium-term planning period, Modoc County and the City of Alturas will evaluate participation in a regional material recovery facility that will process some combination of mixed recyclables, source separated materials, and mixed municipal solid waste.

Waste Reduction Effectiveness: **Medium-High.** In other communities, mostly manual MRFs have demonstrated diversion rates as high as 40% of the total solid wastestream.

Impact on Wastestream: No shift in waste generation is expected.

Institutional Factors: **Medium-High.** New contracts with waste haulers or facility developers/operators would need to be negotiated.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. While consistent with the City's and the County's intentions to reduce the wastestream, this program would potentially entail lengthy proposal and project approval processes as well as contract negotiations. The program would have to demonstrate cost-effectiveness in view of the low volume and transportation requirements of the remote location.

Need for New Facilities: **High.** New facilities would be required to implement this program. A full-service MRF is not likely to be developed in Modoc County.

Ease of Implementation: **Medium.** The length of the planning and approval stages for this type of project makes it most likely to be implemented in the early medium-term planning period.

Environmental Impacts: **Medium.** Potential environmental impacts include noise, odor and aesthetic factors, impacts to worker health and safety due to heavy equipment operation in a personnel-intense work environment, and emissions from the vehicles transporting materials. All of these impacts can be mitigated.

Program Flexibility: **Medium-High.** Materials recovery facilities can be flexible if initial designing incorporates processing options.

Markets: Markets are generally better for recyclables processed through a MRF, particularly if materials enter the process separated from the wastestream.

Program Cost: Capital costs are estimated between $150,000 - $300,000.

Mechanized Material Recovery Facility

Mechanization is usually applied in designs of facilities scaled to process large volumes of materials. It could have more than one sorting line with magnets, separating screens and shakers, as well as blowers and balers. Because of their size and equipment requirements, mechanized facilities have higher capital costs than less mechanized processing facilities.

Waste Reduction Effectiveness: **Medium-High.** Diversion rates of 20%-25% are frequently projected for mechanized MRF's, while some are reported to be capable of rates as high as 40% of the total solid wastestream. Modoc County and the City of Alturas will measure potential diversion against cost-effectiveness to transport the necessary distances.

Impact on Wastestream: No shift in waste generation is expected.

Institutional Factors: **Medium-High.** New contracts with waste haulers or facility operators would need to be negotiated. Rate structure changes might be needed to fund operations of the facility.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. This program could require changes to zoning in the jurisdiction which builds the facility. In addition, it would potentially entail lengthy proposal and project approval processes as well as contract negotiations. Approval of the City of Alturas and Modoc County's participation in such a facility would require approval by the Board of Supervisors and the Alturas City Council.

***Need for New Facilities*: High.** New facilities would be required to implement this program.

Ease of Implementation: **Medium.** Regional options will not likely be available until the medium-term planning period.

Environmental Impacts: **Medium.** Potential environmental impacts include transfer vehicle emissions, noise, odor and aesthetic factors, impacts to worker health and safety due to heavy equipment operation in a personnel intense work environment; however, all these impacts can be mitigated.

Program Flexibility: **Medium-High.** Materials recovery facilities can be flexible if initial designing incorporates processing options.

Markets: Markets are generally better for recyclables processed through a MRF, particularly if materials enter the process separated from the wastestream.

Program Cost: Capital costs could range from $500,000 to $5 million, depending on the site and size. Processing costs vary from $35 to $75 per diverted ton.

Buyback Recycling Center

In 1991, one Certified Redemption center existed in the City of Alturas which has been providing recycling services since 1984; another began operating in the Newell area in 1991. The Alturas center collects and processes California redemption aluminum, glass and plastic containers, recyclable glass, bi-metal cans, scrap aluminum, copper, brass and other metals, but take no paper products at this time. They do not track whether materials come from the unincorporated County area or from the City of Alturas. The County and City of Alturas will promote these programs through an education and information program.

Land Use and Planning Ordinances

Both the City of Alturas and the County are required, per new CIWMB regulations in effect in September 1994, to adopt an ordinance requiring that adequate, accessible and convenient areas for collection and loading of recyclable materials be included in new development projects with five (5) or more living units and which have areas where solid waste is collected and loaded. This ordinance would be implemented by the Planning Department (after Board of Supervisors approval). The CIWMB has a model draft ordinance available.

4.0 COMPOSTING

Composting programs which contribute to diversion requirements include only those alternatives whose products result from the controlled biological decomposition of organic wastes that are source-separated from the municipal solid wastestream or separated at a permitted centralized waste processing facility. This does not include backyard composting, as that is counted as source reduction. Land application of processed green and wood waste is considered recycling.

The most recent regulations regarding composting define 'active compost' as compost feedstock that is in the process of being rapidly decomposed and is unstable, where biological activity is occurring at a high rate resulting in increased temperatures and/or respiration."

This section will describe the reasonable options available to Modoc County and the City of Alturas for diverting wood and yard waste, and other compostable materials in the wastestream. The California Integrated Waste Management Board is currently in the final approval process for composting facilities permitting regulations. This most recent version of Chapter 3.1 proposes amendments to green material composting regulations now in effect, and deals with new requirements for consumer material, sewage sludge, and mixed solid waste composting facilities.

Varying levels of technology can be applied in composting facilities; from windrows that require minimal turning and take one-to-three years to decompose, to high-technology in-vessel processes with forced aeration. Factors to consider in selecting the appropriate level of technology include available feedstock (types and volumes), available markets, distance to transport, and regulatory requirements. There are several steps to a composting operation (as it is another form of recycling), including:

- Sorting the feedstock to prevent contamination by non-organic materials;
- Grinding or shredding feedstock to blend the material for easier handling and to provide adequate surface area for microbe action;
- Biological decomposition;
- Curing.

The quality of the end-product and its marketability are dependent on the quality of the feedstock, balance of material types entering the process, and degree of contamination by nonorganic or potentially hazardous materials.

Volume of available feedstocks is the major obstacle to a program in Modoc County and the City of Alturas. While Alturas is an old, established community, Modoc County's agricultural industry reuses the major portions of waste that might be compostable. According to the 1983 Solid Waste Management Plan, crop residues are primarily managed onsite. Grain wastes are usually burned in the fields. Hay crops do not generate compostable materials. Row crops grown in Modoc County include potatoes, the vines of which are burned before and after harvest, and small amounts of culled potatoes which do enter the wastestream; and onions whose tops are turned into the soil after drying. Other compostable materials include some yard waste and slash and wood waste from tree-trimming and forestry operations; however, it is potentially costly to collect what is estimated to be a low volume of materials. Materials availability is also affected by the prevalence of backyard burning or residential burning of yard and wood waste along with household trash. A regional approach would enhance the cost-effectiveness and viability of any composting operation in this area of the state. Cold winters also impact the usefullness of this diversion strategy.

Choice of collection options will strongly affect the cost of the program. Many strategies are being tried in different communities around the country, from bag collection, curbside noncontainerized pick-up, to wet/dry compostables collection. Modoc County could plan to include separation of yard/green waste at the drop-off facilities at transfer stations. The County and City of Aluras might wish to consider an ordinance prohibiting disposal of wood and yard waste in the future, when other diversion options are in place.

4.1 GREEN WASTE COMPOSTING

Waste Reduction Effectiveness: **Low-Medium.** Given the relatively low volume of yard waste in the wastestream, this program would likely divert up to 8% or 16.4 tons of the yard waste generated by both jurisdictions' wastestreams.

Impact on Wastestream: No shift in waste generation would be expected from this program.

Institutional Factors: **High.** Unless regulations are amended, permits would need to be acquired from the Local Enforcement Agency, the Regional Water Quality Control Board and the California Integrated Waste Management Board, Air Pollution Control District and Department of Toxic Substances.

Consistency with Local Policies, Plans and Ordinances: **Low**. While consistent with the City and County's intention to reduce the wastestream, this program could require zoning changes and ordinances. To be most effectively implemented, it might also require a ban on burning which is not consistent with local policies.

Need for New Facilities: **Medium-High.** New facilities would be required to implement this program.

Ease of Implementation: **Low.** With the lengthy permits and approvals requirements, this program could not be implemented before the medium-term planning period.

Environmental Impacts: **Low.** This program requires CEQA certification, including a Mitigation Schedule and Notice of Determination. Potential hazards include surface and ground water contamination, odors and vectors. These hazards can all be mitigated, however, as materials can be screened to minimize contamination, piles turned more frequently to minimize odors; increasing the moisture content, turning piles and controlling the temperature can discourage vectors.

Program Flexibility: **Medium.** The program is flexible in that either a low tech or high tech approach can be taken to processing.

Markets: Depending on the content and quality of the product, Modoc County could find local markets for materials among the federal and state agencies requiring such materials for landscaping, and erosion control.

Program Cost: Costs to develop a windrow composting facility include capital costs for equipment and ongoing operating costs.

4.2 MUNICIPAL SOLID WASTE COMPOSTING

Because of the County's low waste generation and distance from other supplies of feedstock, this program will not likely be implemented in Modoc County or the City of Alturas. In this method of composting, the organic portions of the wastestream, including paper, yard wastes, food wastes, sewage sludge and manure - anything that once was alive - are combined, usually in a closed vessel system. Heat can be applied externally, or over a longer period of time the heat generated by the microbiotic process destroys the pathogens present in the materials. There are approximately twenty (20) facilities across the United States doing this type of processing according to *Waste Age*, August, 1993. A project in Connecticut in 1992 demonstrated that residents could divert up to 70% of their household trash with a combination of recycling and source-separating compostable, organic materials. Other technologies take in the entire wastestream and reduce it to a soil amendment material. Questions remain, however, regarding the quality of product and the cost-effectiveness of the process. Such a facility would be more cost-effectively developed as a regional program.

Waste Reduction Effectiveness: **High.** Materials available for composting in Modoc County's wastestream represent approximately 20% of the total; for the City of Alturas, compostables represent approximately 26%. If a facility were to be developed, MSW composting could potentially divert 10% (184.8.tons) of the Modoc County wastestream; 248.8 tons or 13% of the city's wastestream.

Impact on Wastestream: No shift in waste generation would be expected from this program.

Institutional Factors: **High.** In the jurisdiction building the facility, permits could be required from the Local Enforcement Agency, the Regional Water Quality Control Board and the California Integrated Waste Management Board, Air Pollution Control District and Department of Toxic Substances.

Consistency with Local Policies, Plans and Ordinances: **Low-Medium**. This program could require zoning changes and ordinances if the facility were sited in the County. In addition, to be most effective, this program would likely require imposition of a burning ban countywide.

Need for New Facilities: **High.** New facilities would be required to implement this program, whether in-vessel or covered facilities. If Modoc and Alturas were to participate in a regional facility, facilities or equipment would be required to reduce the volume of materials prior to composting.

Ease of Implementation: **Low.** With the lengthy permits and approval requirements, this program could not be implemented before the medium-term planning period.

Environmental Impacts: **Medium-High.** Potential hazards include surface and ground water contamination, nuisance odors and vectors. These hazards can all be mitigated, however, as materials can be screened to minimize contamination, piles turned more frequently to minimize odors (if windrow technology is employed); increasing the moisture content, turning piles and controlling the temperature can discourage vectors. Leachate collection systems can be designed into the facility.

Program Flexibility: **Medium.** This program is relatively flexible and can be adapted to changing diversion needs and changes in technology.

Markets: The ag industry in Modoc and neighboring counties provides a relatively strong local market, depending on the content and quality of the product, and the ability to transport back from a regional facility.

Program Cost: Capital costs for a facility that could process the organic portions of the municipal solid wastestream range $200,000-$300,000. Operating costs average $40-$70 per ton processed.

5.0 SPECIAL WASTES

Special wastes are those materials that because of the source of generation, physical, chemical or biological characteristics or unique handling and disposal practices, require special collection, handling or disposal. Examples of special wastes which the City of Alturas and County of Modoc would likely need to manage include:

- Bulky items, furniture, small appliances
- Construction & Demolition (C&D) debris
- Used tires
- Scrap metals

Programs to be evaluated will focus on used tires, C&D debris, and bulky items.

5.1 BULKY WASTES - FURNITURE, SMALL APPLIANCES

There are no salvage activities currently taking place at any Modoc landfills or transfer facilities. Occasionally, residents bringing other wastes to facilities will reclaim reusable items they find; however, there is no one in charge of these activities and no separate areas are set aside to provide protection for reusable items.

Waste Reduction Effectiveness: **Low.** Although these materials do not constitute a large portion of the wastestream, diversion of reusable, repairable, and recyclable items that are large and bulky saves landfill space and potentially lower the cost of long-haul..

Impact on Wastestream: No shift in waste generation would be expected from this program.

Institutional Factors: **Medium-High.** The County would need to commit to making space available for this acitivity at one or some of its facilities, as well as seek or solicit a private business or individual to manage the program.

Consistency with Local Policies, Plans and Ordinances: **Medium**. This program is consistent with both jurisdiction's plans to reduce their wastestreams; however, this is not currently an identified need.

Need for New Facilities: **Medium-High.** New facilities are not required; however, some kind of sheltered receiving and storage area at Alturas Landfill would facilitate the program.

Ease of Implementation: **Low-Medium.** Momentum would need to be developed for this program, and interest generated in the outlying communities and the County as a whole for participation.

Environmental Impacts: **Low.** As long as materials are processed on a regular basis, no signficant environmental impacts or potential hazards are anticipated from this program.

Program Flexibility: **Medium-High.** The program is flexible in that it can target one material type or another as needed by what is in the wastestream to be removed.

Markets: Markets for repaired or repairable items are unknown; however, there are few thrift stores and repair shops, and the economy indicates that low cost usable items could be in demand.

Program Cost: This program would require staff time to develop, as well as construct an area suitable for separation of materials. With private sector participation, the costs to operate would be minimal to the County.

5.2 USED TIRE COLLECTION

There are no re-tread businesses in the City of Alturas or Modoc County. Local tire dealers have in the past either taken used tires to the landfill or sent to a tire burner. Currently, one tire dealer participates in a company-sponsored program to divert used tires to an Oregon warehouse/facility for retread or incineration. Used tires represent 1.5% of the Modoc County disposed wastestream. In 1991, the Department of Public Works reports that approximately 1,734 used tires were received at Countywide facilities. At the Lockwood Landfill in Nevada, the destination for Modoc County waste, the operator buries used tires. The County has no ordinance at this time restricting landfilling of whole used tires and Modoc facilities.

One alternative use for scrap tires is rubberized asphalt. Beginning in 1994, crumb rubber will be required by law to be used in federally funded roads. Some paving companies in Northern California have been experimenting with the use of rubberized asphalt paving on roads in Shasta County, and state requirements will increase the use of this material in the future. The nearest vendor of chipping/grinding services is in Marysville.

There is a cement factory in Mountain Gate, Shasta County, right off Highway 5 which uses scrap tires as fuel in its kiln, and the resultant ash as a component in the production of cement. Modoc County could contract with them to collect tires from a central location on a periodic basis. It is likely the County would need to increase its fee for disposal of used tires (currently $1.00 ea.; $3.00 w/rims) at disposal facilities and transfer stations. They might also want to limit the facilities which take tires in order to facilitate collection by a contractor. The County should consider an ordinance prohibiting landfilling of unprocessed tires.

Waste Reduction Effectiveness: **Low.** Used tires constitute only 2% (38.7 tons) of the unincorporated Modoc County wastestream; 1.9% (36.9 tons) of the City of Alturas's wastestream. A program for collection at a central facility could divert 80% of the tires normally disposed; however, diversion credit is only available after 1995 for tires incinerated to generate heat or power. In the case of cement production when the resultant ash is used as a component, it is not known if diversion credit would be given.

Impact on Wastestream: No shift in waste generation would be expected from this program.

Institutional Factors: **Medium-High.** There are no barriers to diversion of tires. The County and the City of Alturas would prefer private options to operating such a program themselves, and would need to solicit private participation.

Consistency with Local Policies, Plans and Ordinances: **Medium**. This program is consistent with both jurisdiction's intentions to divert a greater precentage of their special wastes from disposal; however, it could require implementation of a disposal ban, and enforcement of illegal dumping violations.

Need for New Facilities: **Low-Medium.** Although structures might not be required, it will be necessary to construct some kind of storage area, should this program be instituted at transfer stations or landfills.

Ease of Implementation: **Medium-High.** Program implementation could be dependent on a fee increase and/or drafting of an illegal dumping ordinance. This program would likely be implemented in the medium-term planning period.

Environmental Impacts: **Low.** No significant environmental hazards are indicated by a tire collection program; however, tires would need to be stored properly between pick-ups to eliminate mosquito breeding in the water that could collect in stacked tires. Tires can also be fire danger if allowed to accumlate. Higher processing fees could mean an increase in illegal dumping, particularly in the early stages of the program.

Program Flexibility: **Medium.** A used tie program is quite flexible, in that it can be managed by several combinations of public/private arrangements.

Private Sector Potential: **Medium-High.** The transport of tires would be carried out by the private sector, either under contract with the County or individual businesses.

Markets: The cement plant in Shasta County is a strong market for the tires generated in Modoc County. Oxford Tire is already operating in Plumas, and could be approached to pick up in Modoc.

Program Cost: The cost to the County and the City of Alturas is dependent on the type of program implemented, the balance of public and private actions. Oxford Tire has quoted whole tire collection costs at $.78/passenger car tire; $5.00/truck tire; $15.00/tractor tire.

5.3 CONSTRUCTION & DEMOLITION DEBRIS

An assessment of the potential in Modoc County and the City of Alturas for diverting wood waste, inerts and metals through this type of recycling program is difficult to make. Current building industry activity is relatively depressed. Most of the activity is centered around the City of Alturas, where most of the County's growth is taking place. An evaluation of C&D for possible diversion has not taken place. Inerts coming to Modoc County landfills are managed through reuse onsite as roadbase or in daily cover. Metals are separated out for pick up by the scrap metal recycler. Wood that is not reusable is most often burned.

Waste Reduction Effectiveness: **Low-Medium.** Putting a program in place to separate the wood and inerts could divert an estimated 2% (37 tons) of wood waste, scrap metals and inerts from the unincorporated County wastestream; 2% (37.6 tons) from the City of Alturas.

Impact on Wastestream: No shift in waste generation would be expected from this program.

Institutional Factors: **Medium.** May require specific ordinances to address this material type and negotiation of contracts with service providers.

Consistency with Local Policies, Plans and Ordinances: **Medium**. This program is consistent with the County's intention to reduce the wastestream.

Need for New Facilities: **Medium-High.** New facilities or equipment might be required to implement this program.

Ease of Implementation: **Medium-High.** With the changes now happening in Modoc County's solid waste management and facilities plans, this program would more likely be implemented in the medium-term planning period , once facilities at Alturas Landfill are in place. It will also require siginificant public education effort to make residents and contractors aware of the program's requirements.

Environmental Impacts: **Low.** Regulations require that wood wastes not be stockpiled for longer than 30 days before grinding. The Regional Water Quality Control Board would be concerned about run-off of rainwater through stockpiled wood.

Program Flexibility: **Medium.** The program is somewhat flexible and could with some modifications be carried out on a more modest scale at one or another of the higher volume transfer stations.

Markets: There are nearby markets for wood chips. In addition, there may be a market for reusable lumber that can be salvaged through this program. Inerts can be used on-site or by the County as roadbase.

Program Cost: Similar operations have cost other jurisdictions approximately $30/ton of wood ground for fuel.

5.4 SCRAP METALS

Scrap metals, including white goods, ferrous metals, and auto bodies, have been separated from the wastestream for many years in Modoc County, and collected by a qualified metal salvager under agreement with the County. Metals are stockpiled at various Modoc County facilities between collection rounds. The County intends this program to continue and will establish a contract with a qualified recycler/salvager to collect the material on a regular basis. It will also consider improvement of stockpiling areas at landfills and transfer stations. As this program is currently in operation, it will not be evaluated here.

****

This concludes the Program Evaluation section. Please see Section V, *Selected Programs* to be Implemented, for a summary of the programs that Modoc County and the City of Alturas will consider implementing, the component programs objectives, materials targeted and diversion amounts projected for both short-term and medium-term planning periods. Section V will also include a summary implementation schedule for all component programs.

SECTION V

PROGRAMS SELECTED FOR IMPLEMENTATION

1.0 INTRODUCTION

This component will describe each of the programs selected for implementation by the City of Alturas and Modoc County, including any diversion programs already in existence. The description of each alternative selected will include a discussion of *why it was selected* based on data from the waste generation study and an evaluation of the City and County's existing conditions. In addition, the objectives for each component will be included in this section. Each alternative selected will provide an estimate of the anticipated quantities of solid wastes to be diverted by waste type and its contribution to the short-term and the medium-term diversion goals. Diversion by material type is detailed in Appendix F.

Discussion must also include how each selected program will be implemented, including the time frame for implementation, tasks to completed for implementation, and the agency responsible for each task. Table V-5 details the programs and implementation schedule for all component programs.

2.0 PROGRAMS TO BE CONTINUED

The only County-operated diversion program in 1991, as described in the *Existing Conditions* section, was:

- Scrap metal collected from County-owned and operated landfills and transfer stations (see Page III-4)

3.0 SOURCE REDUCTION

More and more frequently referred to as waste prevention, source reduction programs seek to achieve the goal of *generating less waste* in the first place. The primary strategy of Modoc's source reduction programs will be to provide a basic level of education for residents, businesses, and institutions about the ways they can generate less waste. In this effort the County will rely on volunteers in outlying communties

to help implement waste prevention education. Modoc County will also advocate a leadership role for its own and other governmental offices in developing and carrying out policies that encourage the generation of less waste.

3.1 SOURCE REDUCTION OBJECTIVES

Short-Term Planning Period

- Develop a source reduction education program targeting the residential generator segment by December 1994.
- Establish a waste reduction and recycling policy Countywide by ordinance or resolution by December 1994.
- Develop and implement nonprocurement policies and waste prevention practices in County offices by December 1994.

Medium-Term Planning Period

- Develop and implement procurement policies in City and County departments which give preference for purchase of recycled and reusable products by the end of the first quarter of 1995.
- Implement residential source reduction education program by January 1995.
- Reduce yard waste in the residential wastestream by 2% through backyard composting by July 1996.
- Develop and implement a source reduction education program targeting businesses by September 1995.
- Evaluate the potential of a Countywide waste exchange, promoted through the County's newsletter.
- Develop a program to provide technical assistance to businesses, education regarding waste audits by October 1995.
- Provide information and promote commercial and institutional participation in CalMAX Waste Exchange Program.
- Establish a program to recognize exemplary waste reduction accomplished in the business community in the City of Alturas and the unincorporated County by March 1996.
- Through all source reduction/waste prevention activities, divert approximately 2% of unincorporated Modoc County's wastestream by the year 2000; divert approximately 2% of the City of Alturas's wastestream by the year 2000.

3.2 MATERIALS TARGETED FOR SOURCE REDUCTION DIVERSION

A review of the City of Alturas and unincorporated Modoc's wastestreams leads the City and County to target the following materials for source reduction program diversion. Targeting is based on the percent of wastestream the material represents, its recyclability and difficulty in diverting through other methods.

- Plastics; film plastics, styrofoam
- Hi-grade paper, computer paper
- Mixed paper
- Organics; clothing, leather
- Food waste
- Yard waste

3.3 SOURCE REDUCTION PROGRAMS SELECTED

Source reduction programs selected for implementation are listed according to whether they will be implemented in the short-term planning or the medium-term planning period.

Short-term Planning Period Programs

Public Awareness, Technical Assistance Programs - Residential

In its initial phase, this program includes the production and distribution of a solid waste newsletter as part of the Education and Public Information program. The next step will include the production or acquisition of brochures containing source reduction information as well as information about other waste reduction programs active in the County. The City and County will make available to residents information on backyard composting (using CIWMB resources as well as generating additional flyers). Volunteers from the Local Task Force, the City of Alturas and the outlying communities will be recruited to help implement source reduction programs, including composting workshops. Although other staff may be designated at a later date, for the purposes of this document the responsible agency for implementing all SRRE programs will be the Modoc County Department of Public Works.

This program was selected because it has the potential to impact a large portion of waste generators and because education programs are an effective means of encouraging source reduction actions. Education programs can teach people that they can make environmentally sound decisions with little personal sacrifice. This program increases waste reduction across all material types, but will likely effect greater reductions in paper, packaging materials such as plastics, and yard waste.

Nonprocurement Policies

Within their own offices and agencies, the City and County will take the lead by establishing nonprocurement policies that promote the use of reusable, repairable, and recyclable products among their employees. A cross-departmental committee will be established and training will be offered (as needed) in the use of two-sided copiers. As budgets permit, duplex copiers will be purchased for all departments. In addition, the City and County will increase the use of retreaded tires on nonemergency vehicles.

This program was selected because the City and County offices are visible in the community, and can impact the behavior of citizens by example.

Medium-Term Planning Period

Procurement Policies

This program will target City and County government and institutional offices. Each jurisdiction will develop policies regarding product purchase specifications to incorporate a requirement for use of recycled materials, reusable products and products designed to be recycled to the maximum extent practicable. The policies will further state a price preference to be given to recycled products, with the preference percentage based on lowest bid or price quoted by the supplier or

suppliers offering non-recycled products. All City and County departments will be encouraged to cooperate and support the intent of these policies. A joint City/County committee will be set up to evaluate the benefits of joint purchasing in order to achieve bulk purchase cost savings.

Federal government offices in Alturas and unincorporated Modoc County already have such policies in place, although federal mandates have exempted rural, small offices from many of the requirements. U.S. Forest Service offices in Alturas have a recycling coordinator who helps maintain a level of participation in waste reduction and diversion activities. This person could be helpful in providing information on the practical aspects of procurement policies in government offices.

This program was selected because government is the largest employer in the County, and as such impacts a lage percentage of the households in the city and county through practicies that become a part of office procedure and habit. In addition, decisions implemented in this sector can significantly impact the flow of waste, and reduce the amount of paper, packaging and other nonrecyclables in the wastestream, as well as impact markets for recyclable products and those with recycled content.

Public Awareness, Technical Assistance Programs - Commercial

Modoc County and the City of Alturas will provide separate diversion information to the commercial sector specific to their needs. Information will be provided to help businesses assess their wastestream for ways to reduce the flow of waste, and opportunities for recycling in the community. The CIWMB also has materials that can be tailored to the community's needs. A speaker's bureau will be recruited from the Local Task Force and interested members of the community to provide persons to speak before clubs and civic organizations. This committee will present workshops on how to do an internal waste evaluation from information provided by EPA or the California Integrated Waste Management Board. Information about CalMAX, the California Integrated Waste Management Board's waste exchange program will also be made available. The City and County may also wish to investigate the feasibility of developing a local waste exchange.

Once diversion programs are established and businesses are taking action, a program of recognition and awards will be instituted to highlight those businesses which accomplish the most waste reduction in a given year. Awards might be established by type of business or on the basis of percent of total wastestream reduction as measured against a baseline year that is the same for everyone participating.

This program was selected because businesses, institutions and industry contribute 52% of the total flow of waste in Modoc County. Basic information and waste reduction education will help businesses see the cost-effectiveness of waste reduction and will increase participation in other waste reduction or recycling programs in the County and City.

3.4 SOURCE REDUCTION PROGRAM DIVERSION

The programs selected will provide the following estimated diversion in the short-term and medium-term planning periods. Diversion by material type is described in Appendix F.

Table V-1
Source Reduction Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year Diversion	.3%		0.0%	
• Public Awareness/Tech.Assist. (R)	.8%	1.0%	1.0%	1.2%
• City & County Procurement Policies		.5%	.3%	.5%
• Nonprocurement Policies		.3%	.3%	.5%
Total	**.8%**	**1.8%**	**1.6%**	**2.2%**

4.0 RECYCLING

Recycling in Modoc County in 1991 was generally limited to one drop-off/buyback facility in the City of Alturas which receives materials from the entire county. Various private recycling collection projects process their materials through this facility (see *Existing Conditions*, Page III-3,4). No collection of recyclables was being carried out by the waste hauler in the base year. More recently, California Pines residential community has begun a curbside program, collecting from approximately 5% of the 250 households. Government offices have had recycling programs in place since 1991, primarily for office paper and mixed paper. Any aluminum cans or California Redemption materials were taken to the buyback in Alturas. There was no measurable commercial recycling activity in the unincorporated county in 1991; however, cardboard baling and backhauling is attributed to several Alturas grocery stores.

4.1 RECYCLING OBJECTIVES

Objectives for recycling programs are described as follows:

Short-Term Objectives

- Provide recycling education and public information programs promoting recycling through the County newsletter by October 1994.
- Establish a subcommittee of the Local Task Force or other public and private members to develop and help implement recycling education and information programs by November 1994.
- Institute drop-off recycling facilities at (all or selected) transfer stations for residential and commercial self-haul populations by December 1994.
- Work with the Planning Department in drafting an ordinance and planning guidelines for the design of recycling enclosures in residential and commercial developments by December 1994.

Medium-Term Objectives

- Educate Modoc residents in the importance of purchasing products with recycled content and the impact of that practice on market development.
- Work with the service provider to develop collection program for office paper recycling to service school and government offices in the City of Alturas and Modoc County by July 1995.
- Evalute potential benefits of participation in regional materials recovery facility when it comes on line.
- Divert at least 20% of the Modoc County and City of Alturas wastestreams through recycling activity by the year 2000;
- Evaluate a seasonal green waste recycling program that could produce mulch for City/County landscaping or erosion control needs.

4.2 MATERIALS TARGETED FOR RECYCLING DIVERSION

Materials targeted for diversion through recycling programs will include primarily:

- Corrugated cardboard
- Newspaper
- Office paper, computer paper
- Mixed paper
- CRV glass, recyclable glass
- CRV plastic
- Aluminum, tin cans

4.3 RECYCLING PROGRAMS SELECTED

In selecting programs to achieve recycling diversion, the City of Alturas and Modoc County are carefully considering the existing conditions in Modoc County. The County has recently approved a parcel fee increase and long-haul contract to Lockwood Landfill in Nevada. Recycling programs selected for implementation need to be compatible with that plan. The future may include participation in the regional materials recovery facility under consideration in Lassen County. The City and County will plan recycling programs compatible with this program.

Another consideration in program selection is the diffused population of Modoc County and the high level of self-hauled waste from both the City of Alturas and unincorporated Modoc County. Hauling costs for non-source separated waste need to be balanced against the separation and collection costs for recyclables.

SHORT-TERM PLANNING PERIOD

Drop-Off Collection at Landfills & Transfer Stations

This program was selected because it is an enhancement of activities already taking place. Existing service and any increased service level will need to be promoted and advertised. The County is negotiating with a private waste hauler. This program targets the self-haul generators, both residential and commercial, who contribute approximately 66% of the Modoc County and 57% of the City of Alturas generated wastestream. Implementation of this program could require

enhancement of the drop-off sites at landfills and transfer stations to accomodate more material types, additional bins, more monitoring of drop-off to minimize contamination of loads. It will also be dependent on completion of a processing, transfer and storage facility at the Alturas Landfill which will facilitate the bulk consolidation of recyclables.

Land Use & Planning Ordinance

This program was selected to meet CIWMB regulatory requirements, and to provide effective collection and loading space for recycling in new developments of 5 or more units, both in the City of Alturas and the County. It is not expected to have significant impact on diversion, as there is very little building or development going on at present either in the City or the County.

MEDIUM-TERM PLANNING PERIOD

Evaluate Participation in Regional Materials Recovery Facility

This program is projected for the medium-term planning period because a regional materials recovery facility is in the planning stages for Lassen County and should be operational in the medium-term planning period. Modoc County may plan to use such a regional facility to process its municipal solid waste and divert what is not then long-hauled to Lockwood, NV.

Modoc County and the City of Alturas will evaluate the cost-effectiveness of this kind of processing as compared with expansion of source-separation capabilities of their own prior to committing to participation.

Expand Materials Collected through Drop-Off Program

The County and City will assess markets and collection and processing capabilities, and consider expanding the types of materials collected at drop-off facilities to non-CRV material types, such as mixed paper, magazines, phone books, and tin cans. It is likely that drop-off programs will be managed by the private sector; therefore, expansion of collection will be a matter of negotiation with the service provider. The County could include the addition of material types in its contract for service.

4.4 RECYCLING PROGRAM DIVERSION

Recycling programs selected are projected to provide the following estimated diversion. Diversion by material type for recycling programs is described in Appendix F.

V-2
Recycling Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year Diversion	11.3%		11.6	
Drop-Off Recycling - Outlying Facilities		3.0%		
Alturas Landfill Drop-Off Recycling				3.0%
Processing Facility at Alturas Landfill		12.5%		10.3%
Total		**15.5%**		**13.3%**

Unauthorized Removal of Recyclables

As recycling programs expand, the City and County will evaluate the need to develop ordinances that address unauthorized removal of recyclables.

4.5 MARKET DEVELOPMENT

As a first step in market development, the City of Alturas and Modoc County will provide information and education for residents and businesses on the importance of "closing the loop" (see Education and Information Component) by purchasing products made with recycled materials, and encourage them to write to manufacturers opposing products that are readily disposable or which have excessive packaging. The City and County also recognize the importance of separating recyclables from waste to protect the market value of the materials. Programs carried out by an action of the County and the City of Alturas will encourage the practice of source separation to maintain a high level of quality, as long as this practice can be maintained in such a way as to not add inordinate cost within the solid waste funding system.

4.6 END MARKETS

The City of Alturas and Modoc County will depend on the private sector for implementation of their recycling programs. It will be the private sector's responsibility to market materials collected and processed. In general, materials collected from the City of Alturas and Modoc County are transported to secondary markets in Redding or Reno, two to three hours away, and from there to manufacturers in the Pacific Northwest, the San Francisco Bay Area, or Southern California. Materials collected in Modoc County will find ultimate end uses as follows:

Aluminum Cans

The primary market for aluminum containers is the aluminum producing companies that make cans. Aluminum smelters that make the ingots or bars of metal from scrap are an increasing market for aluminum cans. People who recycle and processors who handle the materials need to watch for contamination of the recycled product by dirt, plastic and other metals. Although it is also recyclable, aluminum foil cannot be mixed with aluminum cans.

Newspaper

By far the largest market for newspapers is the recycled newsprint industry which deinks the old papers to make clean pulp from which new newsprint is made. Newspaper is also used to make boxboard and other recycled paper products, cellulose insulation and animal bedding. Newspaper that gets wet or contaminated with food, broken glass or other paper grades will be hard to sell. Analysis of the supply of newspaper could indicate a local market.

Office Paper (ledger, hi-grade)

According to Chaz Miller, in the March, 1993 *Waste Age*, more than 50% of the office paper currently collected for recycling is exported. Of the portion that remains in this country, some is made into recycled boxboard, containerboard, printing and writing paper.

Corrugated Cardboard

The main sources of unrecycled cardboard are residences and small retail stores. Quantities of corrugated in the unincorporated County wastestream may suggest adding this material to the drop-off collection scenario in the medium-term. The primary market for corrugated is the paper industry which remanufactures it into more corrugated (medium), linerboard, paperboard and other paper products.

Glass

Whether California Redemption Value or other recyclable glass, most is made back into glass containers. Other markets include: road construction, either as glassphalt or as part of the roadbase; filler in storm drains or French drain systems; fiberglass production. Increasing the cost of recycling glass is the necessity to separate colors by hand to ensure single color glass for most processes.

Steel Cans

Ninety percent of the cans which contain food are steel. Although the price for steel cans is not as good as aluminum, steel cans have been recycled for as long as steel has been used in the manufacturing industry. Contaminants are not as great a problem in this remanufacturing process. Steel can markets include the steel, detinning and iron and steel foundry industry.

Mixed Paper

Although it is often not collected because of its previously perceived low market value, mixed paper (per AB 939, unsegregated combinations of two or more types of the following: newspaper, corrugated, office paper, computer paper, white paper, coated paper stock, or other paper) has a growing market. New processing techniques are opening markets for mixed paper, making it more valuable to separate, process and market. In the manufacturing process, mixed paper is most often used for boxboard. Other uses include roofing felt and construction materials.

Plastics

PET or polyethylene terephthalate is used primarily to make soft drink bottles, as well as peanut butter, salad dressing, and other household and consumer products. PET soft drink bottles are the most widely recycled plastic package. Most recycled PET is used in the fiber industry for carpet fiber, as well as back into other PET containers. It is also used in making plastic lumber.

HDPE or high-density polyethlylene is the milky white plastic resin used to make milk, water and juice bottles. Most recycled HDPE will be sold to plastics processors. Collection and processing costs have made virgin resin cheaper than recycled or post-consumer HDPE resin. The costs of collection and processing which affect the market price for post-consumer plastics have reduced the viability of including this material in local recycling programs, although 1.367 million tons of HDPE bottles and containers were sold in 1991 and only 10% were recycled nationwide.

5.0 COMPOSTING

Modoc County and the City of Alturas elect not to recommend local development of a composting program for the short-term or the medium-term planning period. There is a relatively small amount of green waste or yard waste currently in the wastestream that would provide feedstock for municipal green waste composting. Agricultural wastes that might provide feedstock are generally managed on the land. (See *Waste Generation Study*, page II- 6.) Both jurisdictions will instead encourage backyard composting to manage the yard waste and residential food waste components, and wood waste diversion as part of a Construction & Demolition debris recycling program. A seasonal green waste diversion program will beevaluated in the medium-term, as to the feedstock available and need for mulching material or erosion control.

Co-composting of yard/wood waste and municipal sewage sludge is a developing technology that has not received full regulatory approval at this time. U.S. EPA outlines standards in rule 40 CFR, Part 503, which establishes criteria for land application of treated sludges and sludge-derived compost, based on contaminant levels of 11 heavy metals. The level of purity to which sewage sludge compost would need to be prepared would depend on the enduse of the product. The City and County will continue to watch industry developments and assess the viability of this technology and its applicability to Modoc's needs.

Municipal solid waste (MSW) composting processes the entire wastestream for all organic materials that can be composted. The same contamination criteria apply here as to sewage sludge composting. The end-product of this process might be usable as daily cover in the landfill, should that use be approved by the CIWMB. This is a capital-intensive activity likely to be developed by the private sector.

Should a composting facility be developed in association with the regional materials recovery facility in Lassen County, the City of Alturas and Modoc County will consider participation in the medium-term planning period. Volume reduction activities could take place at a central location in the jurisdiction (likely Alturas Landfill), allowing more cost-effective transport to a regional facility. A regional operation would mean a flow of materials and increased marketablity that a Modoc County-based operation would not provide.

5.1 COMPOSTING OBJECTIVES

Objectives of the County's Composting component are as follows:

Medium-Term Diversion Objectives

- To investigate participation in a regional composting operation.

5.2 MATERIALS TARGETED BY COMPOSTING PROGRAMS

Materials targeted by a potential composting program in the medium-term planning period include:

- Wood waste
- Yard waste
- Mixed paper
- Manure
- Food waste

5.3 COMPOSTING PROGRAMS SELECTED

No composting programs were selected for implementation in the short-term or medium-term planning period.

Regional Composting Operation

The City and County will investigate participation in a regional composting operation in the medium-term planning period to divert yard and green waste, wood waste, mixed paper and food waste. Manure could be added to the other materials to provide necessary fluid and nitrogen components. In the event that a regional program develops, Alturas and Modoc County will plan to do low level processing to reduce the bulk and make transport more economical. This processing could take place at Alturas Landfill (assuming it is the major transfer station).

5.4 COMPOSTING PROGRAM DIVERSION

No diversion is claimed for composting programs in either the City of Alturas or Modoc County.

5.5 COMPOSTING MARKETS

Compost is most often used in agriculture, landscaping, nurseries, and sold retail for home yard and garden use. In addition, compost finds uses in some parts of the nation as landfill cover, in surface mine reclamation, top-soil production, and where trees are grown for harvest. Lesser grades of compost can be used in freeway landscaping and construction for erosion control. A national survey, *Potential U.S. Applications for Compost* (1992), indicates that the market can absorb all compost that can be produced.

As compost is bulky and difficult to transport, local or regional uses would be the most practical. In Modoc County, whether a local project or as part of a regional facility, potential markets could be the local agriculture industry, U.S. Forest Service, and Bureau of Land Management for use on range lands or in areas of timber harvest. A midwest community used city-produced compost as the agent to seed over 86 acres of wildflowers.

Developers of a regional facility could conduct a survey of potential markets and uses based on the quality and volume of product that could be produced. Product should be designed and marketed to meet the needs of the segment for which there is the best potential.

6.0 SPECIAL WASTES

In recommending component programs, the City of Alturas and Modoc County will consider the impact of targeted materials on landfill space and the cost of long-haul transport of the jurisdictions' wastes. They will also take into consideration the cost-effectiveness and availability of technology to manage the materials, and programs or activities already in existence.

6.1 SPECIAL WASTE PROGRAM OBJECTIVES

Objectives of special waste programs to be implemented by the City of Alturas and Modoc County in the short- and medium-term planning period include:

Short-term Planning Period Objectives

- Establish a written contract with a qualified scrap metal dealer and continue scrap metal diversion program, centralizing collection at fewer facilities, and providing better sorting areas.

Medium-Term Planning Period Objectives

- Increase the amount charged to dispose tires at the County's landfills, as well as other special wastes by July 1995.
- Investigate the feasibility of a salvage operation at Alturas Landfill in conjunction with the long-haul operation and establishment of processing capabilities there.
- Establish a used tire management program in the County to keep tires out of landfill by July 1995.
- Reduce the amounts of inerts and wood being landfilled by 2% by December 1995.

6.2 MATERIALS TARGETED BY SPECIAL WASTE PROGRAMS

Programs recommended by Modoc County will target the following materials, based on the impact of diversion on remaining landfill capacity and long-haul costs, as well as the percent by weight in the wastestream:

- Scrap metals: ferrous, white goods
- Bulky items - furniture, mattresses, leather
- Used tires
- Consruction & Demolition debris - wood, inerts, metals

6.3 SPECIAL WASTE PROGRAMS SELECTED

The County of Modoc and City of Alturas will implement the following special waste programs:

SHORT-TERM PLANNING PERIOD

White Goods/Scrap Metals

The established policy for the removal of discarded vehicles and scrap metals from disposal, which has been carried out since the early 1970's needs to be formalized through a contractual arrangement with a qualified scrap metal dealers..The County will negotiate with the private waste hauler to arrange for continued operation of this program, seeing that materials are more carefully separated, stockpiled and collected with greater frequency in order to come into better compliance with CIWMB regulations.

MEDIUM-TERM PLANNING PERIOD

Salvage at Landfill and Transfer Station (Central)

This is a new program never undertaken before; however, the County will seek interested parties in the private sector to carry out such a program. This operation would be logical to set up at the Alturas Landfill where it would serve residents of Alturas also. Implementation will be dependent on funds to set up separate sorting/storing area. Targeted materials would include furniture, small appliances, and other repairable and reusable waste types that should be kept out of the landfill, and for which local markets can be developed.

A model for this kind of program is Garbage Reincarnation's salvage operation in Sonoma County. Self-haulers can drop by "Recycletown" and leave things like lumber and demolition waste, old appliances, bicycles, used irrigation equipment, as well as used paint, oil, batteries, magazines for reuse by others. Materials are sold back to dealers or bargain hunters.

This program was selected because the City of Alturas and Modoc County want to separate these materials from what has to be shipped to Lockwood Landfill at long-haul costs. There may be additional practicality to separation and re-use or repair of these materials.

Used Tire Collection

The City of Alturas and Modoc County will investigate alternatives for management of used tires. Tires can continue to be managed through transport to Lockwood Landfill where they are buried. An ordinance needs to be considered to restrict landfilling of used tires, and increase the fee for handling of used tires at disposal and transfer facilities. Private sector solutions should be investigated first, whereby tire dealers, automobile service stations, and farm equipment dealers would be encouraged (if they are not already doing so) to participate in a used tire collection program. Depending on cost, the County could contract with Cemenergy located in Shasta County for used tire collection and incineration; or contact Oxford Tire to assess their willingness to collect tires for retreading or incineration in Modoc County.

This program was selected because used tires represent a material type that takes up inordinate amounts of landfill space and causes other health and safety risks when not adequately managed. The City of Alturas and Modoc County recognize the need to better manage this waste type.

6.4 SPECIAL WASTE PROGRAM DIVERSION

The programs selected to divert special wastes in Modoc County will provide the following levels of diversion from the total Modoc County generated wastestream. Diversion by material type for each of these programs can be found in Appendix F.

V-4
Special Waste Program Diversion

Program	Modoc County		City of Alturas	
	S-T(tons)	M-T (tons)	S-T(tons)	M-T(tons)
Existing Base-Year Diversion	3.6%		1.8%	
Scrap Metal Collection		3.0%		3.0%
Bulky Item Recovery		1.0%		1.4%
Construction & Demolition Debris		2.2%		2.0%
Recovery/Recycling				
Total		**6.2%**		**6.4%**

7.0 COMPONENT PROGRAM IMPLEMENTATION

At the time of this writing it is planned that the Department of Public Works will be the responsible agency for seeing that all component programs are implemented. The County will work closely with City representatives, Local Task Force volunteers, and the franchise waste hauler now operating at transfer stations to ensure cost-effective and efficient program implementation.

Table V-5
Program Implementation

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Source Reduction			
Public Awareness/ Tech. Assistance - Residential	• Develop Countywide solid waste newsletter	Public Works	9/94-10/94
	• Organize committee of LTF to assist	PW, City Rep,	10/94-12/94
	• Develop promo plan	w/LTF, volunteers	12/94-3/95
	• Develop/acquire waste reduction brochure w/local info on recycling options, etc.		11/94-1/95
	• Survey for interest in backyard composting		3/95-4/95
	• Use and promote CIWMB composting video		4/95-6/95
	• Schedule workshops on backyard composting, based on survey results.		4/95-Ongoing
Procurement Policies	• Draft joint resolution for City/County procurement policies	City & County Employee Comm.	12/94-3/95
	• Establish deptl committees to evaluate feasibility and potential benefits of bulk purchasing	w/Admin. at both levels	1/95-3/95
	• Establish procedures and initiate	City Admin. County Admin.	3/95-7/95
Nonprocurement Policies	• Establish committee of County dept. heads or designees to establish internal policies	City Administration & County	1/95-4/95
	...Plan educational effort and develop matls		4/95-6/95
	• Implement educational program		6/95-ongoing

Table V-5
Program Implementation

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Source Reduction			
Public Awareness/ Technical Assist - Commercial	• Develop/acquire materials specific to commercial generators regarding internal waste reduction audits and availability of diversion programs to service them	LTF Committee for Business Educ.	9/95-12/95
	• Develop workshop plan to assist businesses in conducting internal waste audits	Comm. for Bus.Ed	12/95-2/96
	• Make presentations to business organizations re: waste reduction activities	Volunteer Speakers Bur.	2/96-6/96
	• Recruit volunteers for one-on-one audit appointments; train to conduct bus. audits	Comm. for Bus. Ed	2/96-6/96
	• Conduct audits as requested	Comm. for Bus. Ed & volunteers	6/96-Ongoing
	• Set up business awards system		12/95-2/96
	• Promote awards and qualifications		2/96-6/96
	• Announce First Annual Bus. Awards for Exemplary Waste Reduction Efforts		1/97
Expand Drop-off Participation and Opportunities at Landfills, Trans. Stn.	• Review existing facilities for needed improvements - signage, security, etc.	Public Works w/ Private Hauler	10/94-1/95
	• Purchase new bins, if needed	Private Hauler	1/95-3/95
	• Establish monitoring procedures	Public Works	1/95-3/95
	• Assess collection mechanisms and manage	Public Works	3/95-Ongoing
Land Use Planning Ordinance	• Work w/Planning Department to develop ordinance to provide recycling spaces in new developments	Public Works w/Planning	10/94-12/94
	• Get Board of Supervisors & City Council approval of new ordinance	Planning & Public Works; City Council	10/94-12/94
Processing Facility at Alturas Landfill	• Develop design for new facility	Public Works	Completed
	• Begin building construction	Public Works	8/94-ongoing
	• Expected completion		11/94
	• Begin operations (depends on weather)		1/95
Materials Recovery Facility	• Evaluate participation in regional facility	PW w/Private Hlr	Depends on Lassen Cty process, timeframes
	• Determine go/no go on participation	Public Works w/Private hauler	
	• Begin transport of waste to MRF for process		
Composting			
Regional Composting	• Investigate regional facility options available for use	Public Works	6/95-9/95*
	• Assess volume of matls potentially available	Public Works	7/95-9/95
	• Evaluate processing and transportation options and estimated cost/ton	Public Works w/ service provider	6/95-9/95
	• Decide Go/No-Go	Public works w/ Private Hlr	9/95

**(Depends on development of Regl Facilities)*

Table V-5
Program Implementation

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Special Wastes			
White Goods/Scrap Metals	• Establish ongoing contract with service provider	Public Works w/ service provider	12/94-3/95
	• Plan for safe removal of all hazardous matls at collection points	Public Works	1/95-3/95
Salvage at Landfill	• Evaluate possibility of staging at Alturas LF	Public Works w/Private Contr.	1/95-4/95
	• Budget for site improvements	Public Works	3/95-5/95
	• Prepare site as needed	Public Works	7/95-9/95
	• Promote option to residents of Alturas and Countywide	LTF Comm. & County	8/95-Ongoing
C&D Recovery	• Notify contractors' association and local builders of intent to establish program	Public Works w/ assoc. staff	4/95-6/95
	• Plan collection points and prepare facility for stockpiling and processing	Public Works	7/95-9/95
	• Negotiate for use of processing equipment and potentially for transport of wood chips	Public Works w/ service provider	6/95-8/95
	• Begin drop-off collection and processing	Public Works w/ service provider	8/95 Ongoing

MONITORING & EVALUATION

1.0 INTRODUCTION

CCR 18733.6, Chapter 9, Article 6.2 requires that each recycling or composting program that is operated or funded by a jurisdiction must describe how the program is to be monitored and evaluated when it is implemented. The methods of quantification must be identified, either by volume or by weight, as well as as represented as a percentage of the total solid waste generation of the jurisdicton. Criteria for measurement must also be presented.

1.1 METHODS TO MONITOR & QUANTIFY

Methods of quantification must include one or more of the following methods;

- Waste generation study prepared according to Section 18722, Article 6.1;
- Targeted solid waste characterization studies to measure changes in the volume, weight and hazard of specific materials;
- Changes in the marketplace affecting design, production, distribution, sale and/or use of specific materials that impact solid waste generation; or
- Another method which has received written approval by the Board.

The CIWMB has approved a single monitoring and evaluation section for Modoc County and the City of Alturas's SRRE to present their plans for tracking the progress of the recycling and composting programs to be implemented. The following sections will describe the County and the City's plans according to the regulations in Article 6.2, Chapter 9 of the California Code of Regulations.

The overall effectiveness of the two jurisdiction's diversion programs in meeting their waste reduction goals, the City and County's efforts should be reflected in a reduced disposal rate.

Under the new disposal reporting requirements, primary reporting responsibility will be with the private waste hauler to carry out the quarterly surveys and reporting required by the regulations, although the County is the agency in charge and to whom all the information is directed. The City is on the receiving end of the reports compiled by the waste hauler, forwarded to the County and disbursed from there to the CIWMB and the participating jurisdictions.

2.0 AGENCY RESPONSIBLE FOR MONITORING & EVALUATION

Responsibility for monitoring and evaluating recycling and composting programs will be a cooperative effort between the County of Modoc, City of Alturas and the franchise waste hauler/recycler, largely under the authority of the County of Modoc Department of Public Works. The recycling programs which are forecast for implementation will be the responsibility of both the County and a service provider (likely the current franchise waste hauler), depending on the nature of the programs finally implemented. As contracts with service providers are developed, the County will include requirements for tracking and reporting on volumes and types of materials collected through the diversion programs put in place by the City of Alturas and Modoc County.

3.0 MONITORING & EVALUATION REQUIREMENTS

CCR Section 18733.6 requires the County to define specific criteria for monitoring and evaluation of its programs. Contracts with the City and County's service provider will require application of these criteria. By programs, the criteria will include:

- Written criteria for evaluating program effectiveness:
  - + Reports that include amounts by volume and/or weight of materials diverted;
  - + Identification of the generator segment responsible for the program diversion;
- Measures to be taken if monitoring reveals a diversion shortfall.

Methods to be used by Modoc County will include the following:

- Reports from recycling, transformation, composting and solid waste landfill facilities, indicating volumes, weight, and hazard of specific materials.
- Targeted waste characterization studies performed at the Alturas transfer facility.

4.0 SELECTED METHODS FOR MONITORING & EVALUATION

The methods for measurement can only be projected since at this time it is not determined which programs will be operated or funded by the County , by the City, or by a private contract. Recommendations can be made regarding monitoring that could be done by the County and the City of Alturas.

Reports from Waste Haulers & Recyclers

In 1991, the County Department of Public Works was responsible for the transfer of waste from the outlying transfer facilities and operations at the Alturas Landfill. In the summer of 1994, the County contracted with a private waste hauler to man the transfer stations and haul waste from the outlying facilities to the Alturas Landfill. Plans are to long-haul Modoc County and the City of Alturas waste to Lockwood Landfill in Nevada in January 1995. Four transfer station sites are being developed as drop-off

recycling. They are: Adin, Newell, Lake City and Alturas Landfill. Provisions of the contract will include reports on the amount of materials collected and processed by volume (as measured at the Modoc facilities), and weight (entering Lockwood Landfill). The City and County will negotiate with private recyclers, such as the metal salvager and the local drop-off buyback center to obtain regular reports on the amounts and types of materials diverted.

There are many requirements of the disposal-based reporting system that will provide useful information on the effectiveness of the various diversion programs and activities in the City of Alturas and Modoc County; however, most reliable will be the observations and insights of those carrying out the programs.

Targeted Waste Characterization Studies

Modoc County and the City of Alturas are using comparable jurisdiction data to initially characterize each one's wastestream. When future SRRE revisions are planned, funding will need to be provide for targeted waste disposal characterization studies. This revision is required to quantify the solid waste diverted by recycling and composting programs operated or funded by the County, per CCR Section 18726 (a) (2).

Modoc County and the City of Alturas may also elect to do targeted waste characterization studies in the interim to measure the effectiveness of specific programs which target specific material types or generator segments. Such studies could be carried out either by Public Works staff or by the contracted operator. This is a somewhat more expensive method of measuring effectiveness, and would likely only be applied in circumstances where a specific material could be easily identified and related to the effectiveness of specific programs. A method such as this could also be applied to determine whether or not a specific program or effort was needed due to the prevalence of particular material types.

Surveys

Surveys of specific generator segments could be used to determine awareness of particular programs, as in the case of programs specifically targeting the business sector. Targeted questionnaires can be both indicators of current perceptions and a means to increase awareness. Responses to the questionnaire can be tallied and phone calls totaled that come in subsequent to the survey.

5.0 MEASURES TO BE TAKEN IN CASE OF DIVERSION SHORTFALL

In the course of monitoring and evaluating recycling and composting programs for which the City and County are responsible, diversion shortfalls or the inability to reduce disposal to the targeted level may point up deficiencies in programs. Modoc County and the City of Alturas will address potential diversion shortfalls through the following procedures:

- Review and modify as needed diversion objectives for reasonability, both in terms of targets and amounts to be diverted; re-evaluate how well programs in place address them;
- Review monitoring methods for applicability to the program being measured; adjust as needed;
- Increase frequency of monitoring to more accurately analyze flow of materials and activity.

EDUCATION AND PUBLIC INFORMATION

1.0 INTRODUCTION

The success of source reduction, recycling, composting and special waste programs depend to a large extent on the effectiveness of the educational component of the Source Reduction and Recycling Element. The purpose of the City of Alturas and Modoc County's Education and Pubic Information program will be to extend a significant level of information and understanding about existing programs, new opportunities to reduce, reuse and recycle, and the City and County's solid waste throughout the jurisdictions. There are in every community, individuals who have incorporated waste prevention practices into their daily lives and who are committed to waste reduction who can help communicate Citizens of the County and Alturas will need to be educated to the actions they can take individually and in groups to reduce their wastestream and participate in any programs the County and Alturas either implement or wish to promote. This component will combine and coordinate the information and promotion requirements of the other program selected, and formulate an integrated and timed series of activities to support them.

The education and information program must address all generator segments and devise communications strategies to reach each of them. The program will attempt not to duplicate efforts carried out by other groups or organizations, but to coordinate and enhance them. There are a wealth of materials available through the California Integrated Waste Management Board, and staff ready to assist local jurisdictions in getting the word out.

2.0 EDUCATION AND INFORMATION OBJECTIVES

2.1 SHORT-TERM OBJECTIVES

The short-term objectives of the City of Alturas and Modoc County's public education program are as follows:

- To establish a volunteer coordinator to work with the City, County and private service provider in the development of city and countywide information and education program;
- To promote the County's plans for waste reduction and solid waste management through community-based meetings;
- To assess the schools' programs and work with the CIWMB to help expand the school population's waste reduction awareness and diversion activities.

2.2 MEDIUM-TERM OBJECTIVES

The medium-term objectives of the City of Alturas and Modoc County's public education program are described as follows:

- To coordinate acquisition or development of promotional materials, such as pamphlets or brochures, and posters that describe how to reduce waste and promote diversion programs;
- To develop contacts in all the outlying communities of Modoc County who will commit to help communicate the waste prevention message to their neighbors;
- To develop and/or provide feature articles for the newspaper on waste reduction issues and the County's plans.
- To develop a schedule of speaking opportunities for staff and/or volunteers before community groups and clubs.
- To provide informational materials and assistance on backyard composting, and promote residential participation in the unincorporated County.
- To develop information available to businesses for wastestream evaluation and appropriate diversion activities.
- To set up a workshop on waste evaluations and assist individual businesses where requested;
- Institute a public awards and recognition program for businesses doing their part to reduce waste.

3.0 EXISTING CONDITIONS

This section is to identify and describe all existing educational and public information programs and activities within the jurisdiction which promote source reduction, recycling, composting, and the safe handling of waste.

In the base year, there was no organized curriculum in the schools promoting waste reduction or recycling. Individual teachers present units of information for different age levels, but there is no district-wide commitment to particular materials for particular age levels. The California Integrated Waste Management Board has contacted the Department of Public Works to promote the CIWMB school program and provide the

materials free. The City of Alturas and the County will make every effort to facilitate communications with the schools and support implementation locally.

There has been no organized program of education and information presented to the general public by the County of Modoc. This year's Earth Day celebration, a first for the City of Alturas and Modoc County, enjoyed the involvement of several local business and government offices. The event, the promotion and notice given activities has helped raise the level of awareness among residents about diversion activities and recycling opportunities.

There are activities being carried out by the private sector, particularly in federal government offices - the U.S. Forest Service and Bureau of Land Management. This section will describe briefly these activities, and identify the generator segments to be targeted by Modoc's educational and information program.

3.1 GOVERNMENT OFFICES WASTE PREVENTION EDUCATION

As part of its mandates for reducing waste in federal offices, the General Services Administration has instituted a waste reduction and recycling program. According to the recycling coordinator in the Alturas district U.S.F.S office, information is provided to employees encouraging them to use mugs instead of disposable beverage cups, do two-sided copying, and to re-use paper whenever possible, in addition to mandated practices of purchasing retreaded tires and recycled products or products with recycled content. Information is communicated by electronic newsletter and e-mail throughout the federal offices. Bureau of Land Management offices also participate in similar waste reduction practices. A new Executive Order regarding materials acquisition, recycling and waste prevention indicates an increase in attention to education, despite GSA's rescinding of recycling requirements from small or rural government offices.

3.2 EDUCATION IN THE SCHOOLS

A survey of schools revealed that no district-wide waste reduction and recycling curriculum or teaching units are in use. Individual teachers in individual classrooms may provide instruction, but there is no standard curriculum in use. In the seventh grade at the Middle School, one quarter of the year is devoted to ecology and the environment. The teacher covers solid waste diversion and recycling issues during that time.

Composting carried out by the horticulture teacher at Modoc High School is a project raising the level of awareness of students and teaching them about a very simple and basic way to divert particular waste types. The volunteer education coordinator could work with the teacher to recruit students from these classes to carry out educational projects at the elementary school level based on what they've learned.

3.3 TARGETED GENERATORS

The City of Alturas and Modoc County's educational program will target the generator segments listed below. Since the residential generator segments in both the City and the Unincorporated County are larger than the commercial, this segment will be targeted first.

- Residential generators in the outlying communities and the City of Alturas

- Government offices and institutions - city, county, federal and state
- Schools - K-12 in the City of Alturas and Unincorporated Modoc County
- Commercial/Industrial - bars, restaurants

4.0 EDUCATION PROGRAM ALTERNATIVES

Modoc County's many small communities in the outlying areas are a natural basis around which to organize its educational program. The Local Task Force is made up in part of representatives from the various communities. The City of Alturas and Modoc County will look to these volunteers to provide the catalyst for organizing and implementing the education program in the outlying areas. They will seek one person or a committee of the LTF to plan countywide education and information alternatives carefully in order to maximize resources. The City and County will plan to expend some funds or allocate existing staff to act as a coordinator of all SRRE programs, including the Education and Public Information component programs early in the medium-term planning period. Although the private sector or volunteers may carry out many of the tasks of the education and information program, the City and County are jointly responsible for ensuring a program is implemented.

4.1 STEPS IN PROGRAM DEVELOPMENT

In planning an education and information program, there are several important steps to be taken:

- Identify target audiences (generators);
- Develop an advisory committee to assist with planning & implementation (a committee of the Local Task Force, for instance);
- Research existing materials and activities used in the City, County and state;
- Identify best means to involve your publics, based on resources available (resources in the outlying communities);
- Identify media resources and contacts;
- Develop plan consistent with all program component needs.

To determine which messages need to be communicated to which audiences and what tools can be used to carry those messages, planners should answer the following:

- What is the current level of waste prevention or recycling activity in the City of Alturas and the Unincorporated County?
- What is the current level of awareness of solid waste management issues?
- Are there active, involved citizens who could be recruited as leaders?
- What local issues most concern the residents of the City of Alturas and unincorporated Modoc County?
- Who are our local media contacts (newspaper, radio, etc.)?

4.2 PROGRAMS TO BE CONSIDERED

Types of programs that the City of Alturas and Modoc County could consider include:

- A countywide newsletter that communicates about solid waste issues and concerns, and reminds residents of the City and County of the opportunities to recycle or reduce the amount of garbage they generate.
- Acquisition or creation of informational materials, i.e. handouts, mailers, or brochures that provide information on basic waste reduction practices.
- Contact districts/schools to stimulate interest in presentations and/or teaching units which incorporate waste reduction and recycling education, as well as activities.
- Involve a volunteer in creation of a media program (radio, newspaper, local cable channel) that informs the public of County and City programs and plans, and encourages participation, feedback, etc.
- Develop a booth/display to use at the County fair or other Countywide events;
- Plan and develop a traveling presentation/workshop with speakers and information that can be held at schools or gathering places in the communities of the unincorporated County to inform residents of County's waste management plans and provide waste reduction information;
- Provide technical assistance to businesses on how to perform internal waste audits
- Develop a business awards program to yearly honor those businesses which achieve exemplary levels of waste diversion
- Provide information on the CalMAX program, a free service provided by the California Integrated Waste Management Board which is designed to help businesses and other public entities find markets for valuable materials they no longer need. They produce a catalog bi-monthly.

5.0 PROGRAM SELECTION

The following programs have been recommended for implementation as Modoc County's Education and Public Information program: a countywide solid waste newsletter; elementary and secondary education programs; residential education and information program based in the outlying communities; media communications plan; technical assistance and local business awareness programs.

5.1 PROGRAMS TO TARGET RESIDENTIAL GENERATORS

Community-based Workshops/Town Halls

Members of the Local Task Force who represent the outlying communities will solicit participation from others in their communities to hold community-based Town Hall programs. An evening workshop presentation, at which information can be presented about the County Department of Public Works' waste management plans, as well as basic waste prevention information, recycling opportunities at the drop-off sites, and backyard composting information. The Local Task Force or an education committee of the LTF could help develop the outline for a basic presentation. County staff could provide an information segment about facilities and programs planned. Community presentations would be based on the character and needs of each.

Other elements of the residential generator-targeted education and information plan include:

Media Communications Plan

A City representative, County representative or a member of the Local Task Force will develop contacts among the local media - the Modoc Record, KCNO, and Channel 6 public access television. The local public access channel broadcasts a "Reader Board" on which community announcements and events can be publicized. The County will evaluate use of materials provided in the CIWMB's Communications Kit, and develop a simple media communications plan (beginning with a Countywide newsletter, and potentially including a series of newspaper articles, ads, public service spots for radio and TV) that will provide information to the public on waste reduction practices and local programs in place and planned. The program can be designed to provide information keyed to the City and County's developing waste management plans and SRRE program implementation schedule.

Handouts, Brochures, Mailers

However modest in the beginning, the County's program will provide handouts or brochures with information on recycling opportunities available in the unincorporated County, including private recyclers and County-sponsored programs at landfills, as they are developed. These handouts will also contain general information about how and why to reduce waste in addition to the where-to-recycle information. Information provided by the CIWMB Communication Kit can be incorporated with independently developed material.

Fair Booth Display

County fairs generally provide a good opportunity to present information about the community. Since the Fair is very well attended by a wide range of the Countywide population, information and education presented there will potentially reach a major portion of the residential generator segment. The booth will draw more people if it can combine entertainment and education; for instance, a puppet show that is waste reduction/diversion oriented will attract people and educate them; a magic act can entertain and bring people to the booth where brochures can be handed out or information otherwise disseminated.

5.2 ELEMENTARY AND SECONDARY SCHOOLS PROGRAMS

The County will also need to rely on volunteers to work with the school districts and individual schools to institute an information and awareness program for the schools. Following the CIWMB contact at the district level, a series of presentations could be planned to raise the level of awareness about waste reduction and recycling activity in the schools. Content could include information about what school children can do to participate in and support existing community waste diversion programs. Volunteers will be recruited to make the presentations, and with the districts and the schools.

The County and the City of Alturas will also encourage schools to expand internal recycling programs for cans, glass and paper. Transport of materials to drop-off facilities is a consideration. The California Integrated Waste Management Board will provide technical assistance to school districts to help them implement school site waste reduction programs. It publishes a newsletter - "Reusable School News"

- which provides information on what other school districts have done to implement recycling and waste reduction programs.

The Environmental Education Program of the California Department of Education Science and Environmental Education Unit has grant monies available that potentially could fund a portion of the schools' programs. The County can encourage the school district to research grant funding for educational projects related to waste prevention and recycling.

The U.C. Co-op Extension Office in Alturas may also be helpful in the schools's education program, to potentially institute an onsite composting program at the Middle School or High School. As often as possible, program implementation should take advantage of already existing school activities, such as the Project Grad recycling project, and the horticulture class composting program.

5.3 TECHNICAL ASSISTANCE TO BUSINESS

In the medium term planning period, Modoc County will enlist volunteers from the Local Task Force and business clubs and organizations to carry out a technical assistance to business program, either providing information on how to do internal waste audits or perform an audit for them. Waste audits help businesses assess their wastestreams for the types of wastes they produce and what they can readily divert. Presentations can be made at business organization meetings and workshops scheduled to provide the business community with basic waste reduction information, specific to types of commercial generators. Volunteers or County staff will be trained to assist business in performing audits if the private sector cannot provide that capability. The Waste Prevention and Education Division of the Waste Management Board could be contacted for assistance in training to do business waste audits.

A representative from the program could be contacted to speak to groups of business and industry in Modoc County, or their information could be provided at an open forum or community meeting. Among other kinds of information that will be provided to the business community is information on CalMAX, the reuse and recycling program for California business, industry and institutions sponsored by the California Integrated Waste Management Board.

6.0 PROGRAM IMPLEMENTATION

Implementation of Modoc County's education and information programs is described in Table VII-1 below. It describes the program elements, tasks, responsible agency, time frame and anticipated costs. The County may adjust timelines or reassign task responsbility as changing circumstances dictate. As of this writing, the agency responsible is defined as Modoc County Department of Public Works.

Table VII-1
Modoc County and the City of Alturas
Education and Information Program Implementation

PROGRAM	IMPLEMENTATION TASKS	AGENCY RESPONSIBLE	TIME FRAME
Res. Public Awareness Tech. Info Program	• Organize committee to assist in program	LTF members and other volunteers. City/County staff as available	10/94-11/94
	• Develop/decide on program elements and research existing materials from CIWMB, etc.		11/94-12/94
	• Revise/adapt for Modoc and Alturas use		12/94-1/95
	• Distribute brochure,flyers on local recycling		1/95 - ongoing
Media Plan	• Develop media contacts; prepare articles		1/95-3/95
	• Develop/acquire backyard composting ed. materials; review for applicability		1/95-3/95
	• Through newsletter, do survey of interest in backyard composting		3/95-ongoing
	• Use and promote CIWMB composting video		4/95-ongoing
	• Schedule backyard composting workshops		1/95-4/95
Community Outreach	• Develop community presentations; and coordinate with Children's Fair in May		3/95-8/95
	• Develop booth/display/presentation for County Fair in August		
School Program	• CIWMB meets with School Districts	CIWMB; dist. pers.	10/94
	• Voluteers recruited to work w/CIWMB on series of presentations to schools	LTF and City and community mbrs.	10/94-11/94
	• Contact schools to schedule presentations	Ed Team (above)	11/94-12/94
	• Develop/acquire materials; prepare teams	CIWMB; Ed Team	11/94-12/94
	• School District reps to meet w/City, County franchise waste hauler/recycler to develop workable collection programs		1/95-2/95
	• Recruit individual school recyc. coordinator		1/95-3/95
	• Set up collection schedule, and begin		4/95-ongoing
	• High school horticulture class presentation on composting at school		2/95-3/95
Technical Assistance to Business	• Enlist volunteers from Local Task Force and City and County for Business Ed. Task Force	LTF, with City, and County volunteers	6/95-7/95
	• Acquire materials on how to do waste audits and train volunteers (CIWMB staff assistance)	CIWMB or EPA or METRO in Oregon	9/95-12/95
	• Through Speakers' Bureau, inform business community of value of waste audits, waste reduction practices for	LTF volunteers	12/95-2/96
	• Solicit interested businesses in waste audit program	LTF, volunteers	12/95-3/96
	• Distribute information on waste audits	LTF, volunteers	
	• Perform on-site waste audits as requested	LTF, volunteers	6/96-ongoing
	• Establish Business Waste Reduction Awards for local business community	City/County depts of Public Works	2/96-6/96
	• Recognize local business efforts through newsletter and newspaper articles, etc.	City/County & LTF volunteers	6/96-1/97 & ongoing

7.0 PROGRAM COSTS & FUNDING

Modoc County's and the City of Alturas's solid waste management programs are funded through a combination of gate fees and parcel charges. The 1994-95 proposed budget contains some funding for AB 939 programs; however, until future funding sources are defined, Education and Public Information programs will rely on volunteers from the Local Task Force and the community at large. It will investigate materials available at no cost from sources such as the California Integrated Waste Management Board or the Environmental Protection Agency. Currently, the County is producing a newsletter directed to the Countywide Solid Waste Local Task Force, and will plan for wider distribution in the fall of 1994.

Planned programs are listed below along with estimated costs and sources of funding.

Table VII-2
Estimated Costs
Modoc County & City of Alturas Education Program

Program	Est. Yearly Cost	Funding Source/Comments
• Public Awareness/Tech . Info	$1,200-$5,000	City & County SW budget;
(backyard composting info)	newsltr;brochure	volunteers, free CIWMB materials
• Community-based Workshops	$500-$1,000	Will seek donations from commun
& Children's Fair display or booth	flyers, other printed	for matls and to create display.
• County Fair Booth		Will seek bus/org. sponsorship
		to create; volunteers to build
• School Program	No cost to County	CIWMB, voluteers; waste hauler
• Technical Assistance to Business	$1,000-$2,000	City & County SW budgets for
		materials; LTF and volunteers
		to carry out audits
Total Estimated Costs	**$2,700-$8,000***	

*Ranges from $.54 to $1.60 per household, assuming approx. 5,000 households in the County.

Department of Conservation, Division of Recycling opens a new grant cycle in the spring of each year to make funds available to cities and counties for collection, community outreach, education, litter reduction and market development activities. Many other northern California jurisdictions have been awarded program funds for recycling and education efforts. The Department of Education offers yearly Environmental Education grants with monies from the Resources Agency and the Department of Motor Vehicles. Mini-grants of $3,000 are awarded to be used by one or more schools for programs such as Adopt-A-Species, Project Life Lab, Project OCEANS, Adopt-A-Stream or Adopt-A-Beach. Implementation grants of $15,000 are awarded to expand existing district-wide or regional projects. Environmental grant monies can also be applied for teacher training to prepare them to implement environmental curricula. The application cycle opens in the spring with filing deadlines near the end of June. Funds are disbursed in the winter.

8.0 MONITORING & EVALUATION

Monitoring and evaluating education and information programs that involve recycling or composting will likely be the responsibility of the Public Works department or a combination of City and County staff members. The department staff assigned this responsibility will report at least annually on program implementation and progress. Specific methods for evaluating parts of the program are described in the following paragraphs.

8.1 PROGRAMS TARGETING RESIDENTIAL GENERATORS

A direct measure of the effectiveness of this program - brochures, mailers, public events - is any increased participation in the existing programs for recycling and waste reduction available. The County can track increased drop-off activity at transfer stations near the communities where forums or education events are held, should that option be implemented.

A less direct indicator would be the number of brochures distributed, numbers of residents taking part in public forums and events, and surveys conducted both pre- and post-event to indicate changes in behavior, or the intention to change.

Another indicator would be if the elements of the program are being implemented on schedule with attention to each step; i.e., ads are appearing, public service radio spots are being played, articles are being printed in local papers, backyard composting workshops have been held, and presentations have been made as scheduled to community groups and clubs.

8.2 SCHOOL PROGRAMS

The number of schools electing to take part in new recycling programs will be one measure of effectiveness. Ongoing measures of effectiveness would be the amount of materials collected from each school monthly and yearly. Monitoring and evaluation information will be collected from Public Works staff, volunteers, school staff and waste haulers.

8.3 CONTINGENCY MEASURES

If progress reports reflect an inadequate increase in activity or in levels of participation, or lack of response to program elements, the following actions are recommended:

- Thorough review of materials and message for poor targeting with recommendation for rewrite;
- Recommend additional staffing if insufficient to implement program in depth;
- Add new program elements if indicated.

SOLID WASTE FACILITY CAPACITY

1.0 INTRODUCTION

Section 18744, Article 6.2 (revised) of Chapter 9, Title 14 of the California Code of Regulations requires that the Solid Waste Facility Capacity component identify and describe all existing permitted solid waste landfills and transformation facilities within the jurisdictin. The City of Alturas has no solid waste facilities within its city limits. In the base year, Modoc County residents were serviced by five landfills and seven transfer stations. The County currently has only one landfill in operation and has plans to close that remaining landfill and, through a contract with a private waste hauler, initiate long-haul transfer of all city and county waste to Lockwood Landfill in Nevada in January 1995. This component then will describe future disposal capacity for Modoc County and the City of Alturas in terms of Alturas Landfill and its capacity as well as Lockwood Landfill's capacity.

Solid Waste Facilities in Modoc County - 1991

Landfills

- Alturas Landfill
- Eagleville Landfill
- Fort Bidwell Landfill
- Lake City Landfill
- Cedarville Landfill

Transfer Stations

- Newell
- Adin
- Lookout
- Canby
- Likely
- Willow Ranch
- Davis Creek

The component will describe all existing permitted solid waste landfills, identify the owner/operator, quantities and types of solid waste disposed, permitted site acreage, permitted capacity, current disposal fees, and remaining facility capacity in cubic yards and years.

The Solid Waste Facility Capacity component will also include a solid waste disposal needs projection, which documents that additional disposal capacity is available to accomodate the City and County's solid waste disposal for a 15-year period beginning in the base-year. Disposal capacity need is based on projections of solid waste generated in both jurisdictions, and takes into account both population growth and waste that will be diverted through SRRE programs implementation.

2.0 PERMITTED SOLID WASTE DISPOSAL FACILITIES

In 1991 there were five County-operated landfills in Modoc County, and seven small volume transfer stations scattered throughout the County. Most facilities, both transfer stations and landfills, received less than one ton of waste per day. In 1993, four of the five landfills were brought to inactive status and three were in the process of conversion to transfer stations, including the Alturas Landfill which will be converted to a long-haul transfer station by January 1995. Currently, the Alturas Landfill receives waste four days per week, with all the other transfer stations being open one or two days per week, usually Saturday and Sunday plus either Monday or Friday.

Waste disposed at the outlying transfer stations was transported to Alturas Landfill by County employees in 1991. Currently, collection from and operation of the transfer facilities has been contracted to the franchise waste hauler. When the transfer/processing station at Alturas Landfill is complete, the private waste hauler will then transport to Lockwood Landfill in Nevada.

In 1991, the cost of disposal was met through a combination of gate fees and parcel assessments. The parcel assessment was $31.00; gate fees ranged from $3.00/cu. yd.to $6.00 cu/yd., depending on container size.

2.1 FACILITIES DESCRIPTIONS

ALTURAS LANDFILL — SWF # 25-AA001

Owner:	County of Modoc
Operator:	County of Modoc Department of Public Works
Site Location/Address:	One mile south of Alturas City Limits on County Road #60
Site Classification:	Class II, Group 2 & 3
Service Area:	Alturas residents, and residents in environs
Quantity & Types of Waste Received:	6-7 tons per day Municipal waste, wood and metal, tires, dead animals, septage
Prohibited Wastes:	No hazardous wastes accepted.
Permitted Site Acreage:	162 acres
Permitted Capacity:	20 tons/day
Waste in Place:	22,321 cu. yds.
Remaining Capacity:	155,000 cu. yds.
Current Disposal Fees:	$3.00-$6.00 /cu. yd.
Hours of Operation:	8:00 a.m.-4:00 p.m. winter; 10:00 a.m.-6:00 p.m. summer Saturday, Sunday, Tuesday & Thursday

CEDARVILLE LANDFILL

SWF# 25-AA0021

Owner:	Bureau of Land Management
Operator:	Modoc County Department of Public Works
Site Location/Address:	8 miles east of Cedarville on Highway 299E
Site Classification:	Class II, Group 2 & 3 wastes
Service Area:	Cedarville residents and surrounding ranches
Quantity & Types of Waste Received:	1.3 tons/day Municipal waste, tires, auto bodies, wood waste & scrap metal
Prohibited Wastes:	No hazardous wastes accepted.
Permitted Site Acreage:	60 acres
Permitted Capacity:	5 tons/day
Waste in Place:	2,119 cu. yds.
Remaining Capacity:	648,800 cu. yds.
Current Disposal Fees:	$3.00-$6.00 /cu. yd.
Hours of Operation:	Saturday: 8 a.m.-4 p.m winter; 10 a.m.-6 p.m. summer

FORT BIDWELL LANDFILL

SWF# 24-AAA003

Owner:	County of Modoc
Operator:	County of Modoc
Site Location/Address:	1 mile north of Ft. Bidwell, on County Road #3
Site Classification:	Class II, Group 2& 3 wastes
Service Area:	Fort Bidwell residents
Quantity & Types of Waste Received:	.5 tons/day Municipal wastes, wood metal, tires
Prohibited Wastes:	No hazardous wastes accepted.
Permitted Site Acreage:	12.8 acres
Permitted Capacity:	1 ton/day
Waste in Place:	359.59 cu. yds.
Remaining Capacity:	32,000 cu. yds.
Current Disposal Fees:	$3.00-$6.00 /cu. yd.
Hours of Operation:	Sunday (hours as above)

EAGLEVILLE LANDFILL

SWF# 25-AA0002

Owner:	Bureau of Land Management
Operator:	Modoc County Department of Public Works
Site Location/Address:	4 miles east of Eagleville, County Road #38
Site Classification:	Class II, Group 2&3 wastes
Service Area:	Eagleville residents
Quantity & Types of Waste Received:	Less than 1 ton/day Municipal wastes, metal, wood, tires
Prohibited Wastes:	No hazardous wastes
Permitted Site Acreage:	22.5 acres
Permitted Capacity:	1 ton/day
Waste in Place:	247 cu yds.
Remaining Capacity:	55,000 cu. yds.
Current Disposal Fees:	$3.00-$6.00 /cu. yd.
Hours of Operation:	Saturday (hours as above)

LAKE CITY LANDFILL

SWF# 25-AA0004

Owner:	Bureau of Land Management
Operator:	County of Modoc Department of Public Works
Site Location/Address:	2 miles east of Lake City, on County Road #15
Site Classification:	Class II, Groups 2&3 wastes
Service Area:	Lake City ranches
Quantity & Types of Waste Received:	Less than 1 ton/day Municipal wastes, tires, wood and metal
Prohibited Wastes:	No hazardous wastes accepted
Permitted Site Acreage:	22.67 acres
Permitted Capacity:	2 tons/day
Waste in Place:	$3.00-$6.00 /cu. yd.
Remaining Capacity:	45,000 cu. yds.
Current Disposal Fees:	See Table VIII-1
Hours of Operation:	Saturday & Sunday; hours as above.

Lockwood Regional Landfill	MSWL-001
Owner:	Refuse, Inc.
Operator:	Refuse, Inc.
Site Location/Address:	Approx. 12 miles SE of the City of Reno, NV, a few miles south of Interstate 80 on Lockwood Road. Assr. Parcel #: 4-131-03 100 Caramella Way, Lockwood,NV
Site Classification:	Class I
Service Area:	Waste from City of Reno and surrounding communities, uninc. Washoe County, Western Nevada, Placer, Nevada, Plumas, Lassen and Modoc counties in CA
Quantity & Types of Waste Received:	MSW, C&D debris, tires, white goods and appliances, scrap metal, and hydrocarbon soil.
Prohibited Wastes:	Toxic or hazardous substances.
Permitted Site Acreage:	550 acres; 1,550 acre site
Permitted Capacity:	8,000 tons per day; receiving 2,200 tons/day average
Waste in Place:	1.64 million tons
Remaining Capacity:	11.79 million tons (as of 1/1/93)
Current Disposal Fee:	

Modoc County's transfer stations will be described in the Non-Disposal Facility Element.

3.0 SOLID WASTE DISPOSAL FACILITY NEEDS PROJECTION

It is necessary to estimate the additional disposal capacity, in cubic yards per year, that the City of Alturas and Modoc County should anticipate requiring for the next 15-year period beginning in 1991. This figure is based on the solid waste generation calculations reported in Section II of this document.

Per Section 18744 (b)(2), the required additional capacity formula parameters are listed below in 3.1. The values for each of these parameters are presented immediately following in 3.2.

3.1 FORMULA PARAMETERS

The formula parameters used to determine the additional disposal capacity needed to accomodate anticipated solid waste disposal by the City of Alturas and the unincorporated area of Modoc County are as follows:

Additional Capacity (AC) Year n = [(G + I) - (D + TC + LF + E)] Year n

AC The additional disposal capacity requirement for the City of Alturas and Modoc County unincorporated area.

n A specific year within the 15-year planning period.

G The amount of solid waste projected to be generated in Modoc County's unincorporated area for a particular year.

I The amount of solid waste expected to be imported from the City of Alturas into the County unincorporated area.

D The amount of solid waste diverted by the City of Alturas and Modoc County unincorporated area through successful implementation of proposed source reduction and recycling programs.

TC The amount of waste reduction occurring via permitted transformation facilities for both the City of Alturas and the County unincorporated area.

LF The amount of permitted solid waste disposal capacity that is available within the unincorporated County

E The amount of solid waste generated within the City of Alturas and Modoc County unincorporated area that is planned to be exported to solid waste facilities outside the County through inter-jurisdictional agreements.

3.2 PARAMETER VALUES

The parameters used to calculate the additional disposal capacity required were determined using existing data and assuming implementation of the programs identified in the other components of the Source Reduction and Recycling Element. The following sections describe the parameter values used to determine the additional capacity needs.

Solid Waste Generation (G)

The amount of solid waste projected to be generated within the County unincorporated area each year includes the amount that is projected to be disposed and diverted for that year. The annual generation values were increased according to the projected annual population increase the County is expected to experience during the planning period, which for unincorporated Modoc County is 1.4% per year.

Solid Waste Imported (I)

The amount of solid waste that is expected to be imported to Unincorporated Modoc County for disposal in permitted solid waste disposal facilities through interjurisdictional agreements. For the

purposes of this document, imported wastes refer to wastes from the City of Alturas disposed at County-owned and operated facilities. This value also takes into account population increases and diversion rates for the City.

Solid Waste Diverted (D)

Solid waste diversion includes the amount of material removed from the wastestream through existing and proposed recycling, source reduction, and composting programs. The annual diversion quantities used in the calculation of future disposal capacity needs were adjusted to reflect the impact of implementation of the programs identified in SRRE. The implementation of the programs was scheduled to enable the County to achieve the reduced 12.4% diversion rate by 1995 and a 36.8% diversion rate by 2000; for the City of Alturas, a 13.4% short-term diversion rate and 36.3% medium-term diversion rate.

Transformation Reduction (TC)

Refers to the amount of volume reduction in the City of Alturas and the unincorporated Modoc County's waste through available, permitted transformation facilities. Available records cannot document the amount of waste from unincorporated Modoc County and the City of Alturas going to existing facilities; therefore no transformation reduction will be taken.

Permitted Disposal Capacity (LF)

Represents the combined disposal capacity of Modoc County's five landfills in existence in the base year. A separate calculation has been made for waste disposed at Lockwood Landfill in Nevada.

Solid Waste Exported (E)

In the base year table, no waste is exported. Plans are to begin export of all waste from Modoc County and the City of Alturas) to Lockwood Landfill in January 1995.

Additional Capacity (AC)

In the base year, the future disposal needs of the County and the City of Alturas are expected to be met through existing facilities in the County.

3.3 CAPACITY NEED CALCULATION

The current amount of solid waste generated, disposed and diverted within unincorporated Modoc County and the City of Alturas was determined in other components of the Source Reduction and Recycling Element. In order to relate this tonnage of material with the additional capacity requirements and the capacity remaining at Modocs landfill sites, the quantity of in-coming waste must be converted from weight to volume. The conversion factor used was 550 lbs. per cubic yard which represents the estimated average weight of solid waste compacted at Modoc County landfills, according to Modoc County Department of Public Works.

Parameter Values for Capacity

AC = Parameter to be determined
n^1 = 1991
G^1 = 6,595.6 Cubic Yards.(Unincorporated County generation converted to cubic yards)
I^1 = 6,776.3 (The amount of solid waste projected to be imported into the County unincorporated area from the City of Alturas.)
D^1 = 754.2 Cubic Yards (Unincorporated County diversion in cubic yards)
D2 = 788.0 Cubic Yards (City of Alturas diversion in cubic yards)
LF^1 = 935,800 Cubic Yards
E^1 = 0 Cubic Yards (No export in the base year)

Table VIII-1 shows additional capacity required based on conditions in 1991 (no export). As has been stated earlier in this component, the County and City of Alturas have contracted with the franchise hauler to transfer both jurisdiction's waste to Lockwood Landfill beginning in January 1995. The contract is for a twenty year period, renewable for another twenty. Available disposal capacity is reported by Lockwood operators at 11.79 million tons. **The facility is reported to receive up to 2,200 tons per day. Modoc County and the City of Alturas are currently disposing in one year (3,286 tons/year disposed) what Lockwood receives in about one and a half days.** The City and County are assured the required capacity through their contract with the franchise waste hauler's contract with Lockwood Landfill to receive their waste.

Table VIII-1
15-Year Disposal Needs Projection
Modoc County & City of Alturas

Year	Total Uninc. Generation**	Imported Waste*	County Waste Diverted	City Waste Diverted	Remaining Capacity	Additional Capacity
1991	6,596	6,776	754	788	935,800	0
1992	6,688	6,844	765	796	923,829	0
1993	6,782	6,913	775	804	911,714	0
1994	6,877	6,982	786	812	899,454	0
1995	6,973	7,051	804	833	887,066	0
1996	7,070	7,122	840	855	874,569	0
1997	7,169	7,193	898	895	861,999	0
1998	7,270	7,265	982	956	849,402	0
1999	7,372	7,338	1,097	1,043	836,832	0
2000	7,475	7,411	1,251	1,157	824,355	0
2001	7,579	7,485	1,458	1,309	812,057	0
2002	7,685	7,560	1,733	1,508	800,052	0
2003	7,793	7,636	2,102	1,769	788,495	0
2004	7,902	7,712	2,601	2,112	777,593	0
2005	8,013	7,789	3,272	2,617	767,679	0

FUNDING

1.0 INTRODUCTION

The California Code of Regulations, Section 18746 requires that each jurisdiction demonstrate sufficient funding and resources for the following:

- Program planning and development
- Implementation of programs scheduled for the short-term planning period
- Contingency funding for diversion programs

In 1991, Modoc County was served by a total of five (5) landfills and seven (7) transfer stations throughout the County. Most facilities, both transfer stations and landfills, received less than one ton of waste per day. In order to make solid waste operations more cost-effective and minimize Subtitle D liability, in 1993 four of the five landfills were brought to inactive status and three were converted to transfer stations. Currently the County operates ten (10) transfer stations and one landfill one mile outside the Alturas city limits. Plans are to phase out the Alturas Landfill and convert it to a long-haul transfer station by January 1995.

Facility plans and operations have been the focus of funding concerns over the past year and a half. As facilities are closed, and operations and collection of waste from the transfer stations are privatized, solid waste system costs will become more defined and manageable, and SRRE programs will receive the necessary attention and funding.

2.0 CURRENT FUNDING SOURCES

Modoc County 's and the City of Alturas's current solid waste system funding is described in the following two sections.

2.1 SOLID WASTE COLLECTION AND DISPOSAL SYSTEM FUNDING

Modoc County's solid waste system is funded through a combination of gate fees at the landfills and transfer stations and a countywide parcel assessment. In 1991, the parcel assessment was $31.00. Gate fees were $3.00/cubic yard for residential waste; $6.00 per cubic yard for commercial and Construction and Demolition material. As of July 1, 1994, the parcel assessment was raised to $45.00. Gate fees remain the same.

There are two exclusive residential and commercial franchise areas in the County. One franchise waste hauler contracts individually with the City of Alturas and Modoc County for waste collection in those areas. Based on waste hauler information, approximately 57% of the waste generated in the City of Alturas is self-hauled to Alturas Landfill. Of the waste disposed at Alturas Landfill, the Department of Public Works estimates that approximately 75% (1,663.4 tons/year) comes from the City of Alturas. Approximately 66% of the waste disposed by residents of the unincorporated County is self-hauled to various facilities by both the residential and commercial sector, including government.

In July 1994, the County established a private operations contract with the franchise waste hauler, to manage transfer station operations and collect waste from those facilities. Plans are to cease disposal operations at the Alturas Landfill and transfer all Modoc County and the City of Alturas wastes to Lockwood Landfill in Nevada. The County plans to maintain ownership of facilities, but has found private operation a cost-effective strategy for the multiple facilities in the County. Plans are to convert the Alturas Landfill to a larger scale diversion, volume-reduction and transfer operation, also under private operation. The County intends for the franchise waste hauler to provide that service as early as January 1995.

Revenues from gate fees are approximately $120,000 per year. Parcel fees are projected to increase approximately 68%. Total annual funds available from gate and parcel fees is pojected to be $545,200. Capital costs are being incurred to develop the Alturas Transfer site and, although privatization of operations and collection from transfer stations allows cost-savings in solid waste personnel costs, those savings are offset by the costs required to speed up closure/post-closure funding for the closed landfills at a potential impact to other solid waste programs.

The City of Alturas established an exclusive franchise for waste collection by Ordinance 248. Service is not mandatory in the City of Alturas. Residents are billed by the waste hauler who pays a franchise fee to the City.

Recently, the City of Alturas and Modoc County have agreed to cooperative AB 939 planning. The City and County plans do not include establishing an Enterprise Fund at this time; however, the City will share in the planning costs. Discussions have also included program implementation responsibility in which the County would take the lead. The exact manner of program cost-sharing has not been worked out at this writing.

Through the parcel fee, every property owner in the County contributes to the support of the solid waste management system. Gate fees are user fees that target the large proportion of residents and businesses who self-haul their waste. While gate fees have not been increased in the 94-95 budget year, the costs to implement SRRE programs could be supported by increases in gate fees. The County will consider the benefits of this funding mechanisms for program funding in the early medium-term planning period.

The schedule of fees charged at all County disposal sites is listed in Table IX-1.

Table IX-1
1988 Schedule of Gate Fees

Vehicle/Container Size			Amount
• Small pick-up, 6-foot bed or less:			
Filled to bed level			$4.00
Two feet above bed level			$6.00
Cab level			$8.00
• Medium Pick-up, 7-foot bed or less			
Filled to bed level			$5.00
Two feet above bed level			$7.00
Cab level			$9.00
• Large Pick-up, 8-foot bed or less			
Filled to bed level			$7.00
Two feet above bed level			$9.00
Cab level			$12.00
• Flatbeds and Trailers (per yard)			$3.00
• Can or ag (minimum) rates			
33-gallon (each)			$1.00
55-gallon (each)			$2.00
• Open Roll-off boxes and roll-off compactor trucks (per yard)			$4.50
• Demolition (per yard)			$6.00
Miscellaneous Rates			
Plastic and wire (per yard)			$10.00
Tires (car & pick-up)			$1.00; with rims, $3.00
Truck tires			$6.00
Washing machine (each)			$3.00
Refrigerator (each)			$5.00
Mattress (each)			$2.00
Ash (per yard)			$6.00
(Alturas Landfill Only)	Septage	(per 1000 gallon)	$5.00
	Dead Animals	(large)	$5.00
		(small)	$2.00
(Alturas & Cedarville only)			
	Car bodies (each)		$20.00

Table IX-2
Projected Solid Waste Budgets
1993-94 & 1994-95

MODOC COUNTY	1993-94	1994-95
Revenues		
Gate Fees	$120,000	$120,000
Parcel Fee Assessment	$292,364	$425,200
Interest	$2,940	$1,300
Capital Equipment Loan-Facility at Alturas LF	------	$300,000
	$415,304	**$846,500**
Expenditures		
• Salaries & Benefits	$191,324	$60,088
• Services & Supplies*	$279,978	$511,800
• Fixed Assets/Capital Expenditures	$50,000	$265,000
Subtotal Expenditures	**$521,302**	**$836,888**

*Includes AB 939 Planning costs, closure funds, site monitoring/test costs, as well contract operation and collection of transfer station waste.

3.0 ESTIMATED PROGRAM COSTS

Programs the City of Alturas and Modoc County are proposing to implement were described in the *Programs Selected* section (VI). Both jurisdictions will look to the private sector and volunteers to implement many of the planned programs. The franchise waste hauler is the projected provider in many cases. Table IX-3 presents the proposed programs and describes costs for the recycling programs the County and the City will be responsible for implementing, whether public or private.

Table IX-3
Estimated Program Costs (Short-Term)
Modoc County & City of Alturas

Component Program	Initial Costs	Yearly Oprtng Prgrn Monitor.	Comments
RECYCLING			
• Drop-off Recycling at		$35,000-$40,000	Half of the time of one employee at
Transfer Stations (4)	$10,000 Addl bins		each facility to monitor drop-off
• Drop-Off Recycling at	(bins incl. above)	(Staff incl. above)	and prevent contamination.
Alturas Landfill			
• Processing Facility at	$300,000* for	$16,000-$ 32,000	Private operator to provide equipment
Alturas Landfill	concrete slab &		and employees (1 or 2) depending
	steel structure, etc.		on level of activity. (4 days/wk; 50 wks)
SPECIAL WASTES			
• Bulky Waste Recovery/	$ 35,000-$50,000	No addl. cost	Existing staff to monitor salvage
Salvage at Alturas Landfill	for roofed structure		activity and assist drop-off, separation.
• C & D Debris Recovery		$5,500-$8,500	Employee time to assist drop-off and
at Alturas Landfill			separation.
• Scrap Metal Recycling	No costs to City or		Existing staff to separate;
	County		offset by payment from recycler
PUBLIC ED & INFO		$1,200-$2,500	Includes the Newsletter now in distri-
			bution - staff time to prepare; ads,
Total Program Costs	**$310,000**	**$57,700-$83,000**	flyers; $.50/household countywide
*Budgeted 1994-95			

4.0 CONTINGENCY FUND SOURCES

Factors in the economy of Modoc County and the City of Alturas including the modest media family income and high unemployment rate, impact availability of funding for solid waste. Economic factors were upper most in the minds of the County in the decision to privatize operations at Modoc facilities, and to move toward getting out of the landfill business by transporting waste out of the state. Modoc County could not afford to continue to dispose waste in the County and maintain the increasingly demanding and expensive Subtitle D requirements. The decisions that have been taken and the plans that have been put in motion will provide a more cost-effective solid waste management system for Modoc County and the City of Alturas.

Other alternatives which could provide additional system funding include:

- **Sales Tax:** An increase in the sales tax could be levied, after approval by the voting public, to cover some aspect of solid waste costs. This type of taxation is usually best accepted when it targets specific projects and is put in place for specific period of time.

- **Joint Powers Agreement**: A joint powers agreement is an agreement between two (or more) different government bodies who can pool their financial resources to cover the cost of solid waste facilities and/or services. The City of Alturas and Modoc County are developing a similar agreement for AB 939 planning which could be extended to cover waste diversion program implementation.

- **General Obligation Bonds**: This financing method, a debt instrument backed by the credit of the County, would most logically be applied for capital projects such as landfills or facilities development. Modoc County's capital requirements in view of plans to close out landfill operations and transfer wastes out of state make it unlikely this funding source will need to be tapped in the near future.

5.0 FUTURE FUNDING SOURCES

Although current needs are being met by the increase in parcel fees and the County, additional revenues may be needed in the future to further fund program implementation. The County may choose to increase gate fees in order to encourage Alturas and Modoc County residents to participate in waste reduction programs.

Regional planning and programs have the benefit of spreading the costs of waste management over a broader population segment, and make it possible to implement programs more cost-effectively. The benefits of the City and County sharing program costs offer one level of cost-effective action. There may be broader regional options available in the future that offer greater cost savings to Modoc County and the City of Alturas. Regional developments will be monitored for opportunities.

Grants are a useful option for future program funding where capital requirements are not great but funds to get programs in operation are tight. The City and County will keep informed of grant opportunities offered

by the California Integrated Waste Management Board for used oil recycling, household hazardous waste programs, and public education and information grants. The Department of Conservation, Division of Recycling has a yearly grant cycle, offering funds for recycling projects to cities, conties and nonprofit organizations. The California Department of Education has an Education Grant Fund which provides yearly grants to school districts and individual schools for teacher training and district-wide environmental education programs. The grant awards range from $3,000 to $15,000. These grant monies are potentially available for waste reduction education projects as well. The City of Alturas and Modoc County will take advantage of every opportunity to employ grant funds in implementing its AB 939 programs.

SECTION X

INTEGRATION

1.0 INTRODUCTION

Rather than a set of disconnected activities, the intent of the SRRE is to coordinate all the programs of the City of Alturas and Modoc County so that they function as a whole to efficiently accomplish the diversion goals. This component is required to explain how all the program components **Source Reduction, Recycling, Composting and Special Waste** - combine to meet the reduced diversion goals approved for the City of Alturas and Modoc County in their Petition for Reduced Requirements. It will summarize the programs selected and show the tasks to be completed to implement them. It also provides a short explanation of how program priorities between the components have been determined and of how the component programs jointly achieve the diversion mandates.

1.1 INTEGRATION COMPONENT OBJECTIVES

The objectives of the integration component are to show the relationship between the programs recommended and to describe how those programs promote integrated solid waste management practices in line with the established hierarchy:

SOURCE REDUCTION

RECYCLING AND COMPOSTING

ENVIRONMENTALLY SAFE TRANSFORMATION

ENVIRONMENTALLY SAFE LAND DISPOSAL OF SOLID WASTES

1.2 MANAGEMENT PRACTICES AND COMPONENT PRIORITIES

In the past, Modoc County's isolation from much of the rest of California has kept the county and the City of Alturas insulated from significant involvement in waste diversion practices perhaps more common in more densely populated areas in the state. The low population density and rural nature of the County has permitted the practice of backyard burning as a way to manage waste. Each small community with its own landfill has not experienced diminishing landfill space as have other communities in more urban areas.

In 1993 the County began to focus on the fiscal liabilities represented by its many small landfills in view of pending Subtitle D requirements. By October 1993, the County Board of Supervisors, on the recommendation of the Director of Public Works, has recommended closure of four landfills in the Surprise Valley. They were deactived and three were converted to transfer facilities. In January 1994, the County Board of Supervisors were convinced that the potential fiscal impacts of the County's facilities required additional cost-saving measures, including the potential transport of waste out of the County. Shortly thereafter, an R.F.P. for long-haul bids was issued. In April 1994, the Local Task Force reviewed the three proposals received and made their recommendation to the Board of Supervisors. The Director developed funding options for the new waste management plans and additional AB 939 planning documents, including increases in gate fees and parcel assessments, as well as loan funding for capital improvements. After a public hearing, the Board of Supervisors gave final approval to an increased parcel assessment and loan application package. The decision was drafted into an ordinance that went into effect July 1, 1994.

With these issues coming to a conclusion, the department's focus can shift toward implementation of diversion programs, many of which will be carried out under contract with the private franchise hauler. The franchise hauler has been contracted to provide operations at the transfer facilities and will likely implement diversion programs at those facilities.

This Source Reduction and Recycling Element has been prepared in response not only to State regulation but also to express the County's intentions to address integrated waste management practices. Modoc County and the City of Alturas have evaluated and selected for implementation programs that will build on existing diversion activity, will be efficient and cost-effective, and achieve the reduced diversion goal granted by the CIWMB. Programs considered have had to take into account the low volumes of recyclables present in the County and the City of Alturas, and the desire to fairly distribute the program costs for collection, diversion and disposal over the entire user base. More regional solutions for diversion may be considered in the future. Potentially, source-separation and volume-reduction activities could take place locally and waste disposal could take place regionally. Neighboring counties are already considering or have adoped such plans.

The City of Alturas and Modoc County recognize the overall importance of waste prevention education to the success of their efforts. While some diversion and recycling activities are going on and there seems to be increasing interest in waste diversion and recycling, education programs need to address the rural realitiesof the County. It will be important to focus on individual responsibility for contributions to the wastestream and the benefits of proactively moving to maintain local control, rather than the concern for loss of autonomy and acting in response to mandates. Source Reduction and education programs are to an extent independent of Recycling, Composting or Special Waste programs; however, they must be consistent with and supportive of these other component programs.

2.0 SUMMARY OF PROGRAMS

This section contains a narrative description of the diversion programs the County plans to implement in the short-term and medium-term planning period.

Source Reduction

The focus in the remaining short-term planning period will be on education and public information. The County has initiated a newsletter which it will distribute to the community. The purpose of the newsletter is first of all to bring residents to an awareness of the decision-making process that has lead to the existing solid waste management situation. The emphasis will be on the opportunities this provides for more cost-effective management. The newsletter will highlight existing waste diversion activities and programs in the City of Alturas and countywide in order to increase participation in them. It will include a definition and examples of source reduction - things each individual can do to reduce the amount of waste disposed. This will include composting information.

The City of Alturas and Modoc County will each develop policies for purchasing products with recycled content where it can be done cost-effectively, and take the lead in raising awareness of waste reduction in the offices of local government. Both jurisdictions will work toward cooperative efforts in procurement of supplies and materials. While source reduction has highest priority, the City of Alturas and Modoc County have realistically assigned these programs a low percentage, as results are difficult to measure.

Recycling

The local franchise waste hauler will be contracted to operate drop-off recycling programs at four of the County's transfer stations, including at the Alturas Landfill. This program will be coordinated with the Alturas processing/transfer facility being developed to facilitate the long-haul transfer of waste out of County. A goal is to remove as many recyclable materials as possible prior to transport. The County and City anticipate salvage-type activities at the Alturas Landfill for removal of bulky items, as well as separation of construction and demolition debris for reuse or recycling (depending on material type).

Special Waste Programs

The County and City of Alturas plan that collection of auto bodies, scrap metals and white goods will continue, and will pursue more formal arrangements with the qualified metal salvager. It would be desirable to focus collection at two or three facilities in order to improve the management of these materials.

As reported in the waste disposal characterization, yard waste accounts for only 4.4% of the disposed wastestream in unincorporated Modoc County; in the City of Alturas, 9.0%.. Wood waste in the County represents only 3.6%; the City of Alturas, 8.7%. These numbers and the practice of backyard burning makes a local green waste composting operation impractical. If local markets for mulch could be developed, a seasonal program for collection and chipping of green waste could manage what remains that is not addressed by backyard composting. If a regional facility is developed in association with the proposed MRF in Lassen County, the City and County will evaluated the cost-effectiveness of participating. A ban on backyard burning might change the flow of materials available to a composting operation.

3.0 ACHIEVEMENT OF DIVERSION MANDATES

Tables X-1 and X-2 below demonstrates the ways in which all the programs described in Section 2.0 combine to achieve the City of Alturas and Modoc County's diversion mandates. Component programs are listed by percent of total waste generated, as well as the ways in which they total up to the reduced diversion rates for the short-term reduced and medium-term planning periods. A further breakdown of tons diverted by material type can be found in Appendix F, Diversion Programs.

Table X-1
Unincorporated Modoc County Component Programs
Contribution to Diversion

COMPONENT/PROGRAM	EXISTING DIVERSION	SHORT-TERM (1995) Additional	MEDIUM-TERM (2000) Additional	Total
SOURCE REDUCTION PROGMS	**.3%**	**0.8%**	**1.8%**	**2.9%**
• Public Awareness/Tech. Assist. (R)		0.8%	1.8%	
• Procurement/NonProc. Policies				
RECYCLING PROGRAMS	**7.8%**	**.16%**	**15.5%**	**23.5%**
• Outlying Transfer Stations-Resid.			3.0%	
& Comml. Drop-Off Recycling				
• Processing Facility at Alturas LF			12.5%	
SPECIAL WASTE PROGRAMS	**3.6%**	**0.0%**	**6.2%**	**9.8%**
• Scrap Metal Collection			3.0%	
• Bulky Item Recovery at Alturas LF			1.0%	
• Construction & Demolition Debris			2.2%	
Recycling/Reuse Program				
TOTAL DIVERSION	**11.7%**	**10.0%**	**23.5%**	**36.2%**

Table X-2
City of Alturas Component Programs
Contribution to Diversion

COMPONENT/PROGRAM	EXISTING DIVERSION	SHORT-TERM (1995) Additional	MEDIUM-TERM (2000) Additional	Total
SOURCE REDUCTION PROGMS	**0.4%**	**1.6%**	**2.2%**	**3.8%**
• Public Awareness/Tech. Assist. (R)		1.0%	1.2%	
• Procurement/NonProc. Policies		.6%	1.0%	
RECYCLING PROGRAMS	**9.6%**	**0.2%**	**13.3%**	**23.1%**
• Outlying Transfer Stations-Resid.			3.0%	
& Comml. Drop-Off Recycling				
• Processing Facility at Alturas LF			10.3%	
SPECIAL WASTE PROGRAMS	**1.6%**	**0.0%**	**6.4%**	**8.0%**
• Scrap Metal Collection			3.0%	
• Bulky Item Recovery at Alturas LF			1.4%	
• Construction & Demolition Debris			2.0%	
Recycling/Reuse Program				
TOTAL DIVERSION	**11.6%**	**1.8%**	**21.9%**	**35.3%**

4.0 IMPLEMENTATION SCHEDULE

Table X-3 describes the implementation schedule for both the short- and medium-term planning periods. Each program includes a description of each task, the responsible entity, task starting dates and milestones, and likely funding source for the particular program. The dates of implementation may have to be revised due to occurrences outside the control of the County and the City.

4.1 PROGRAM IMPLEMENTATION FUNDING

It is the intention of the County and the City of Alturas to privatize as many of their diversion programs as possible. Currently, contracts are being drawn with the franchise waste hauler to carry out the drop-off recycling programs at transfer stations. Costs for these programs will then be reflected in the Professional Services section of the Solid Waste budget. At this time, program implementation costs come out of the parcel fee and gate fee revenues. The Table X-3 on the following pages describes the approximate timeframe for program implementation and the funding source to support them.

4.2 ANTICIPATED ACHIEVEMENT OF DIVERSION GOALS

Because solid waste disposal system issues have been the focus of the City and County's efforts over the past year, short-term planning period diversion goals are modest. Public awareness and information programs will take the lead, and increase participation in already existing diversion options.

Attention focused on waste prevention by government procurement and nonprocurement policies will bring the City and County to their respective reduced short-term goals.

In the medium-term, the City and County's goals will achieved through much more active participation in recycling options. From drop-off programs at transfer facilities to bulky item salvaging, C&D recovery, and scrap metal recycling, programs will focus on materials that make the long-haul transfer of waste more costly.

It will also be the responsibility of Modoc County and the City of Alturas to evaluate any regional options in the medium-term planning period. Should a regional Materials Recovery Facility come on line in that timeframe, the jurisdictions will evaluate participation and whether or not it complements the long-haul transfer and the source-separation programs already in place in Modoc County.

Table X-3
Implementation Schedules
All Programs

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Source Reduction			
Public Awareness/ Tech. Assistance - Residential	• Develop Countywide solid waste newsletter	Public Works	9/94-10/94
	• Organize committee of LTF to assist	PW, City Rep,	10/94-12/94
	• Develop promo plan	w/LTF, volunteers	12/94-3/95
	• Develop/acquire waste reduction brochure w/local info on recycling options, etc.		11/94-1/95
	• Survey for interest in backyard composting		3/95-4/95
	• Use and promote CIWMB composting video		4/95-6/95
	• Schedule workshops on backyard composting, based on survey results.		4/95-Ongoing
Procurement Policies	• Draft joint resolution for City/County procurement policies	City & County Employee Comm.	12/94-3/95
	• Establish deptl committees to evaluate feasibility and potential benefits of bulk purchasing	w/Admin. at both levels	1/95-3/95
	• Establish procedures and initiate	City Admin. County Admin.	3/95-7/95
Nonprocurement Policies	• Establish committee of County dept. heads or designees to establish internal policies	City Administration & County	1/95-4/95
	...Plan educational effort and develop matls		4/95-6/95
	• Implement educational program		6/95-ongoing

Table X-3
Program Implementation

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Source Reduction			
Public Awareness/ Technical Assist - Commercial	• Develop/acquire materials specific to commercial generators regarding internal waste reduction audits and availability of diversion programs to service them	LTF Committee for Business Educ.	9/95-12/95
	• Develop workshop plan to assist businesses in conducting internal waste audits	Comm. for Bus.Ed	12/95-2/96
	• Make presentations to business organizations re: waste reduction activities	Volunteer Speakers Bur.	2/96-6/96
	• Recruit volunteers for one-on-one audit appointments; train to conduct bus. audits	Comm. for Bus. Ed	2/96-6/96
	• Conduct audits as requested	Comm. for Bus. Ed & volunteers	6/96-Ongoing
	• Set up business awards system		12/95-2/96
	• Promote awards and qualifications		2/96-6/96
	• Announce First Annual Bus. Awards for Exemplary Waste Reduction Efforts		1/97
Expand Drop-off Participation and Opportunities at Landfills, Trans. Stn.	• Review existing facilities for needed improvements - signage, security, etc.	Public Works w/ Private Hauler	10/94-1/95
	• Purchase new bins, if needed	Private Hauler	1/95-3/95
	• Establish monitoring procedures	Public Works	1/95-3/95
	• Assess collection mechanisms and manage	Public Works	3/95-Ongoing
Land Use Planning Ordinance	• Work w/Planning Department to develop ordinance to provide recycling spaces in new developments	Public Works w/Planning	10/94-12/94
	• Get Board of Supervisors & City Council approval of new ordinance	Planning & Public Works; City Council	10/94-12/94
Processing Facility at Alturas Landfill	• Develop design for new facility	Public Works	Completed
	• Begin building construction	Public Works	8/94-ongoing
	• Expected completion		11/94
	• Begin operations (depends on weather)		1/95
Materials Recovery Facility	• Evaluate participation in regional facility	PW w/Private Hlr	Depends on Lassen Cty process, timeframes
	• Determine go/no go on participation	Public Works w/Private hauler	
	• Begin transport of waste to MRF for process		
Composting			
Regional Composting	• Investigate regional facility options available for use	Public Works	6/95-9/95*
	• Assess volume of matls potentially available	Public Works	7/95-9/95
	• Evaluate processing and transportation options and estimated cost/ton	Public Works w/ service provider	6/95-9/95
	• Decide Go/No-Go	Public works w/ Private Hlr	9/95

**(Depends on development of Regl Facilities)*

Table X-3
Program Implementation

PROGRAM	IMPLEMENTATION TASK	AGENCY RESPONSIBLE	TIME FRAME
Special Wastes			
White Goods/Scrap Metals	• Establish ongoing contract with service provider	Public Works w/ service provider	12/94-3/95
	• Plan for safe removal of all hazardous matls at collection points	Public Works	1/95-3/95
Salvage at Landfill	• Evaluate possibility of staging at Alturas LF	Public Works w/Private Contr.	1/95-4/95
	• Budget for site improvements	Public Works	3/95-5/95
	• Prepare site as needed	Public Works	7/95-9/95
	• Promote option to residents of Alturas and Countywide	LTF Comm. & County	8/95-Ongoing
C&D Recovery	• Notify contractors' association and local builders of intent to establish program	Public Works w/ assoc. staff	4/95-6/95
	• Plan collection points and prepare facility for stockpiling and processing	Public Works	7/95-9/95
	• Negotiate for use of processing equipment and potentially for transport of wood chips	Public Works w/ service provider	6/95-8/95
	• Begin drop-off collection and processing	Public Works w/ service provider	8/95 Ongoing

Education and Information Program Implementation

PROGRAM	IMPLEMENTATION TASKS	AGENCY RESPONSIBLE	TIME FRAME
Res. Public Awareness Tech. Info Program	• Organize committee to assist in program	LTF members and other volunteers. City/County staff as available	10/94-11/94
	• Develop/decide on program elements and research existing materials from CIWMB, etc.		11/94-12/94
	• Revise/adapt for Modoc and Alturas use		12/94-1/95
	• Distribute brochure,flyers on local recycling		1/95 -
Media Plan	• Develop media contacts; prepare articles		ongoing
	• Develop/acquire backyard composting ed. materials; review for applicability		1/95-3/95
	• Through newsletter, do survey of interest in backyard composting		1/95-3/95
	• Use and promote CIWMB composting video		3/95-ongoing
	• Schedule backyard composting workshops		4/95-ongoing
Community Outreach	• Develop community presentations; and coordinate with Children's Fair in May		1/95-4/95
	• Develop booth/display/presentation for County Fair in August		3/95-8/95

Education and Information Program Implementation

School Program	• CIWMB meets with School Districts	CIWMB; dist. pers.	10/94
	• Voluteers recruited to work w/CIWMB on series of presentations to schools	LTF and City and community mbrs.	10/94-11/94
	• Contact schools to schedule presentations	Ed Team (above)	11/94-12/94
	• Develop/acquire materials; prepare teams	CIWMB; Ed Team	11/94-12/94
	• School District reps to meet w/City, County franchise waste hauler/recycler to develop workable collection programs		1/95-2/95
	• Recruit individual school recyc. coordinator		1/95-3/95
	• Set up collection schedule, and begin		4/95-ongoing
	• High school horticulture class presentation on composting at school		2/95-3/95
Technical Assistance to Business	• Enlist volunteers from Local Task Force and City and County for Business Ed. Task Force	LTF, with City, and County volunteers	6/95-7/95
	• Acquire materials on how to do waste audits and train volunteers (CIWMB staff assistance)	CIWMB or EPA or METRO in Oregon	9/95-12/95
	• Through Speakers' Bureau, inform business community of value of waste audits, waste reduction practices for	LTF volunteers	12/95-2/96
	• Solicit interested businesses in waste audit program	LTF, volunteers	12/95-3/96
	• Distribute information on waste audits	LTF, volunteers	
	• Perform on-site waste audits as requested	LTF, volunteers	6/96-ongoing
	• Establish Business Waste Reduction Awards for local business community	City/County depts of Public Works	2/96-6/96
	• Recognize local business efforts through newsletter and newspaper articles, etc.	City/County & LTF volunteers	6/96-1/97 & ongoing

Appendix A

Glossary of Terms & Definitions

GLOSSARY OF TERMS AND DEFINITIONS

The following list of definitions and terms are provided for the readers' reference and may be found throughout the Preliminary and Final Drafts of the Waste Generation Studies, Source Reduction and Recycling Elements, Household Hazardous Waste Element and other required elements of the Solid Waste Management Plan for the County of Modoc and the City of Alturas.

Though satisfying no regulatory purpose, it is believed that providing these Terms and Definitions as an introductory preface will allow the novice reader of the document an introduction to the vernacular particular to the planning requirements and a more thorough comprehension of the plan contents as the various sections are introduced.

(1) Agricultural wastes
Solid wastes of plant and animal orgin, which result from the production and processing of farm or agricultural products, including manures, orchard and vinyard prunings, and crop residues, which are removed from the site of generation for solid waste managment.

(2) Aluminum can or aluminum container
Any food or beverage container that is composed of 94% or more aluminum.

(3) Ash
The residue from the combustion of any solid or liquid material.

(4) Bi-metal container
Any metal container composed of at least two different types of metals, such as a steel container with an aluminum top.

(5) Best readily available and applicable data or representative data
Information that is available to a jurisdiction from published sources, field sampling, the California Integrated Waste Management Board, or other identifiable sources, that is the most current data and that addresses the situation being examined.

(6) Buy-back recycling center
A facility which pays a fee for the delivery and transfer of ownership to the facility of source separated materials, for the purpose of recycling or composting.

(7) Capital costs
Direct costs incurred in order to acquire real property assets such as land, buildings and building additions; site improvements; machinery; and equipment.

(8) CA redemption glass
Glass beverage containers subject to the provisions of AB 2020 and identified with the label 'CA Redemption'.

(9) Collection/Transfer station
A facility, appropriately sized to satisfy a jurisdictions requirements for hazardous and/or solid waste collection and transfer needs.

(10) Commercial solid wastes
Solid wastes originating from those generators categorized as stores, business offices, commercial warehouses, hospitals, educational, health care, military and correctional institutions, non-profit research organizations and government offices. This definition does not include construction and demolition wastes.

(11) Commercial unit
Site zoned for a commercial business and which generates commercial solid wastes.

(12) Composition
A set of identified solid waste materials categorized into waste categories and waste types.

(13) Composting
A method of waste treatment in which organic solid wastes are biologically decomposed under controlled aerobic or anaerobic conditions.

(14) Composting facility
Permitted solid waste facility at which composting is conducted and which produces a product meeting the definition of "compost" in Public Resources Code section 40116.

(15) Construction and demolition waste
Those solid wastes such as building materials, packaging and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures.

(16) Corrugated container
A paperboard container (i.e., cardboard) fabricated from two layers of kraft linerboard sandwiched around a corrugated medium, including but not limited to, kraft paper grocery bags.

(17) Cost-effective
A measurement of cost compared to an unvalued output (e.g., the cost per ton of solid waste collected) such that the lower the cost, the more cost-effective the action.

(18) Discards
That portion of municipal solid waste remaining after recovery for recycling and composting has occurred.

(19) Disposal
The management of solid waste through the landfilling or transformation of wastes at permitted solid waste facilities.

(20) Disposal capacity
The capacity, expressed in either weight in tons or its volumetric equivalent in cubic yards, that is either currently available at a permitted solid waste landfill, or will be needed for the disposal of solid waste generated within the jurisdiction within a specified period of time.

(21) Diversion alternative
Any activity that could result in or promote the diversion of solid waste through source reduction, recycling or composting from solid waste landfills and transformation facilities.

(22) Drop-off recycling center
A facility which accepts delivery or transfer of ownership of source separated materials for the purpose of recycling or composting, without paying a fee. Donation of materials to collection organizations, such as charitable groups, is included in this definition.

(23) Durability
Ability of a product to be used for its intended purpose for a period greater than the mean useful product life span of similar products.

(24) EIR
Environmental Impact Report

(25) EIS
Environmental Impact Statement

(26) End market or end use
Use or uses of a diverted material or product which has been returned to the economic mainstream, whether or not this return is through sale of the material or product. The material or product can have a value which is less that the solid waste disposal cost.

(27) Feasible
A specified program, method, or other activity can, on the basis of cost, technical requirements and time frame for accomplishment, be undertaken to achieve the objectives and tasks identified by a jurisdiction in a Countywide Integrated Waste Management Plan.

(28) Ferrous metals
Any iron or steel scrap that has an iron content sufficient for magnetic separation.

(29) Film plastic
A solid waste consisting of thin, flexible plastic sheets, including but not limited to, plastic garbage bags.

(30) Food waste
All animal and vegetable solid wastes generated by food facilities or residences that result from the storage, preparation, cooking or handling of food.

(31) Generation
The weight of materials and products as they enter the waste stream from residential, commercial and institutional sources and before materials recovery, composting or combustion takes place.

(32) Hazard
Having one or more characteristics that cause a substance or a combination of substances to qualify as a hazardous material, as defined by section 66084 of Title 22 of the California Code of Regulations.

(33) HDPE container
Any container composed of high density polyethylene plastic generally identified with the number '2' on the bottom of the container, including but not limited to, plastic milk jugs.

(34) Household hazardous waste (HHW)
Those wastes resulting from products purchased by the general public for household use that because of their quantity, concentration, physical, chemical or infectious characteristics, may pose a substantial known or potential hazard to human health or the environment when improperly treated, disposed or otherwise managed.

(35) Implementation
The accomplishment of the program tasks as identified in each component required by Section 18733 of this chapter.

(36) Industrial solid waste
Solid wastes originating from those generators categorized as mechanized manufacturing facilities, factories, refineries, construction and demolition projects and publicly operated treatment works.

(37) Industrial unit
Site zoned for an industrial business and which generates industrial solid wastes.

(38) Inert solids
A non-liquid solid waste, including but not limited to, soil, rock, concrete and drywall, that does not contain hazardous waste.

(39) Jurisdiction
City or county responsible for preparing any one or all of the following: the Countywide Integrated Waste Managment Plan, or Countywide Siting Element, or the Source Reduction and Recycling Element.

(40) Marine wastes
Solid wastes generated from marine vessels and ocean work platforms, wolid wastes washed onto ocean beaches, and litter discarded on ocean beaches.

(41) Market development
A method of increasing the emand for recovered materials so that end markets for the materials are established, improved or stablized and thereby become more reliable.

(42) Mean
The arithmetic average of the weight of a waste category or type.

(43) Medium-term planning period
A period beginning in the year 1996 and ending in the year 2000.

(44) Miscellaneous organic
Organic material which by its composition does not belong in any of the following organic waste types: food wastes, tires and rubber, wood wastes, manure and textiles and leather.

(45) Mixed paper
A waste type that is a mixture, unsegregated by color or quality, of one or more of the following paper wastes: newspaper, corrugated cardboard, office paper, computer paper, white paper, coated paper stock, or other paper wastes.

(46) Municipal solid waste (MSW)
All solid wastes generated by residential, commercial and industrial sources and all solid waste generated at construction and demolition sites, at food processing facilities and at treatment works for water and waste water that are collected and transported under the authorization of a jurisdiction or are self-hauled.

(47) Non-ferrous metals
Metal scraps derived from metals other than iron and its alloys in steel, such as aluminum (including foil), copper, brass, bronze, lead, zinc and other metals to which a magnet will not adhere.

(48) Non-recyclable paper
Discarded paper which has no market value because of its physical or chemical or bilogical characteristics or propr

(49) Non-renewable resource
A resource which cannot be replenished, such as those resources derved from fossil fuels.

(50) Normally disposed of
Those waste categories and waste types that fit the following parameters:

a. wastes that have been identified by the Solid Waste Generation Study to be in the solid waste stream attributed to the jurisdiction as of January 1, 1990;

b. wastes that are deposited at permitted solid waste landfills or transformation facilities subsequent to any recycling or composting activities;

c. and, wastes that are allowed to be considered in the establishment of the base amount of solid waste from which source reduction, recycling and composting levels shall be calculated.

(51) Old newspaper
Any newsprint which is separated from other types of solid waste or collected separately from other types of solid waste and made available for reuse and which may be used as a raw material in the manufacture of a new paper product.

(52) Operational costs
Direct costs incurred in maintaining the ongoing operation of a program or facility. Operational costs do not include capital costs.

(53) Organic waste
Non-petroleum based solid wastes originating from living organisms and their metabolic waste products that contain naturally produced organic compounds and are biologically decomposable by microbial and fungal action into the constituent compounds of water, carbon dioxide and other simpler organic compounds.

(54) Non-recyclable glass
A solid waste that is not easily recyclable, including but not limited to, window glass, ceramics and pottery.

(55) Other paper
A solid waste, including but not limited to, paper towels, coated cardboard, milk cartons and paper cups.

(56) Other plastics
All waste plastics other than polyethylene terephthalate (PET), film plastics and high density polyethylene (HDPE) containers.

(57) Permitted capacity
Volume in cubic yards or weight in tons which a solid waste facility is allowed to receive, on a periodic basis, under the terms and conditions of that solid waste facility's current Solid Waste Facilities Permit issued by the local enforcement agency and concurred in by the California Integrated Waste Management Board.

(58) Permitted landfill
Solid waste landfill for which there exists a current Solid Waste Facilities permit issued by the local enforcement agency and concurred in by the California Integrated Waste Management Board, or which is permitted under the regulatory scheme of another state.

(59) PET container
A container, including but not limited to, plastic soda bottles that are composed of polyethylene terephthalate (PET) plastic generally identified with the number '1' on the bottom of the container.

(60) Program
Full range of source reduction, recycling, composting, special waste or household hazardous waste activities undertaken by or in the jurisdiction relating to management of the jurisdiction's wastestream to achieve the objectives identified in the components or HHW.

(61) Purchase preference
Preference provided to a wholesale or retail commodity dealer which is based upon the percentage amount that the costs of products made from recycled materials may exceed that of similar non-recycled products and still be deemed the lowest bid.

(62) Rate structure
Set of prices established by a jurisdiction, special district (as defined in Government Code section 56036), or other rate setting authority to compensate the jurisdiction, special district or rate setting authority for the partial or full costs of the collection, processing, recycling, composting, and/or transformation or landfill disposal of solid wastes.

(63) Recovered material
Material which has been retrieved or diverted from disposal or transformation or the purpose of recylcing, re-use or composting. Does not include those materials generated from and reused on sit for manufacturing purposes.

(64) Recycling
The use or reuse of a waste as an effective substitute for a commercial product, or as an ingredient or feedstock in an industrial process.

(65) Refillable glass beverage container
A solid waste consisting of glass beverage containers that are refillable and are not subject to the provisions of AB 2020.

(66) Region
The combined geographic area of two or more incorporated areas; two or more unincorporated areas; or any combination of incorporated or unincorporated areas.

(67) Repairability
Ability of a product or package to be restored to a working or usable state at a cost which is less than the replacement cost of the product or package.

(68) Residential solid waste
Solid wastes originating from those generators categorized from single-family or multiple family dwellings.

(69) Rubber
An amorphous polymer of isoprene derived from natural latex and certain tropical plants, or from petroleum.

(70) Seasonal
Those periods of time during the calendar year that are identifiable by distinct cyclical patterns of local climate, demography, trade or commerce.

(71) Short-term planning period
A period beginning in the year 1991 and ending in the year 1995.

(72) Sludge
Residual solids and semi-solids resulting from the treatment of water, waste water and/or other liquids.

(73) Source reduction
The reduction or elimination of waste production, including but not limited to, identifying packaging alternatives, disposable product substitutions, utilization of evergreen and drought tolerant vegetation, disposal rate structures creating incentives to reduce generation volumes and the more efficient utilization of paper, cardboard, glass, metal, plastics and other materials.

(74) Special waste
Any solid waste that because of its source of generation, physical, chemical or biological characteristics or unique disposal practices, is specifically conditioned in a solid waste facilities permitted for handling and/or disposal.

(75) Standard deviation
A statistical parameter measuring the dispersion of individual data samples about their arithmetic mean.

(76) Statistically representative
Representative and random samples of units that are taken from a population sample pursuant to the procedures given in Article 6.1.

(77) Tin can or tin container
Any food or beverage container that is composed of steel with a tin coating.

(78) Transformation facility
Facilty whose principal function is to convert, combust or otherwise process solid waste by incineration, pyrolysis, desctructive distillation, or gasification, or to chemically or bilogically process solid wastes, for the purpose of volume reduction, synthetic fuel product, or energy recovery. Transformation facility does not include a composting facility.

(79) Volume
A three-dimensional measurement of the capacity of a region of space or container.

(80) Waste category
The grouping of solid wastes with similar properties that distinguish it from other waste categories.

(81) Waste diversion
Divert solid waste, in accordance with all applicable federal, state and local requirements, from disposal at solid waste landfills or transformation facilities through source reduction, recycling or composting.

(82) Waste type
Wastes having the features of a group or class of wastes that are distinguishable from any other waste type.

(83) White goods
Discarded enamel-coated major appliances such as washing machines, clothes dryers, hot water heaters, stoves and refrigerators.

(84) Wood waste
Solid waste consisting of wood pieces or particles that are generated from the manufacturing or production of wood products, harvesting, processing or storage of raw wood materials or construction or demolition activities.

(85) Yard waste
Any wastes generated from the maintenance or alteration of public, commercial or residential landscapes including but not limited to, yard clippings, tree trimmings, prunings, brush and weeds.

Appendix B

Evaluation Criteria

COMPONENT EVALUATION CRITERIA

In considering alternative SRRE programs, it is necessary to apply consistent and appropriate criteria in order to select programs that will best serve the jurisdiction. In addition to other local planning factors, criteria have been established to assist in this process. This section will briefly describe the criteria and how they will be applied in the evaluation of Modoc County and the City of Alturas's component programs. (*See Section IV.*) Recent revisions of AB 939 have removed the requirement to evaluate alternatives as to their private sector impact.

1. **Waste Reduction Effectiveness**

The alternative's anticipated impact in diverting solid waste from disposal.

Low: Typical waste diversion of 0-5%

Medium: Typical waste diversion of 6-20%

High: Typical waste diversion greater than 20%

2. **Impact on Wastestream**

The extent to which the alternative shifts solid waste generation from one type of waste to another.

Low : The alternative would create a "negative" shift from one type of waste to another; i.e., it would cause a shift in the generation or use of a less desirable material (e.g. nonrecyclable or nonmarketable).

Med: The alternative would create little or no shift in waste type generation.

High: The alternative would create a "positive" shift from one type of waste to another; i.e., it would cause a shift in the generation of more desirable material (e.g. nonrecyclable or nonmarketable).

3. **Institutional Factors**

The extent to which the alternative is in conflict with or implementation of which is potentially blocked by existing local legislation, governmental structure, contracts or political realities; and the extent to which any perceived institutional barriers can be mitigated.

Low: There are few or no perceived conflicts of the alternative with existing local legislation, governmental structures or political realities.

Med: The alternative conflicts with some institutional circumstances, but they may be subject to mitigation.

High: This alternative is perceived as being in conflict with existing local legislation, structure, contracts; is likely not subject to mitigation.

4. **Consistency with Local Policy, Plans and Ordinances**

The extent to which the alternative is consistent with existing ordinances and procedures in the jurisdiction. In general, a high degree of consistency and low need for change is most advantageous.

Low: The alternative is not at all consistent because it will require many changes to existing ordinances or procedures.

Med: The alternative may require some changes in procedures or plans.

High: The alternative is consistent with existing plans and ordinances, and will require very little change to be implemented.

5. **Need for New Facilities**

The extent to which the alternative can be built on existing facilities or programs already operating in the County.

Low: The alternative will require the development of major new facilities or programs.

Med: The alternative will require some new capacity development for an existing program or facility.

High: The alternative can be easily integrated into existing facilities or programs without significant alternation.

6. **Ease of Implementation**

The extent to which the alternative minimizes the time and effort required for implementation.

Low: The implementation time is greater than 3 years.

Med: The implementation time is 1 to 3 years.

High: The implementation time is less than 1 year.

7. **Environmental Hazard or Impacts**

The extent to which the alternative minimizes environmental impacts, including hazards to workers or adjacent communities, noise vectors, air emissions, leachate, odors, and visual aesthetics.

Low: The alternative has environmental impacts or hazards that are not completely understood, or has a history of environmental violations including air pollution or chronic nuisance effects on the community such as air, litter, noise, vectors or visual impacts.

Med: The alternative has environmental impacts or hazards that are known and controllable; some nuisance effects are evident.

High: There are few or no instances of environmental violations or hazards; little or no nuisance effects. Pollutants can be adequately contained.

8. **Program Flexibility**

The extent to which the alternative can adapt to changes in the social environment, such as increasing environmental awareness, changing consumer habits, or technological advancements.

Low: The alternative is not readily adaptable either because of operational limitations or lack of generator involvement in diversion.

Med: The alternative is adaptable to changes in the social environment, but may require significant program alteration.

High: The alternative is readily adaptable to changes in the social environment without significant program alteration.

9. **Market Potential**

The extent to which there are existing, stable markets for the materials diverted by the alternative program.

Low: Markets are few and unstable.

Med: Markets are available and prices are stable.

High: Markets are dependable and prices strong.

10. **Private Sector Potential**

The potential for the alternative to be developed or operated by the private sector .

Low: Little private sector potential.

Med: Potential exists for this alternative to be developed and/or operated by the private sector.

High: This alternative is targeted for private sector operation.

Appendix E

Diversion Study Questionnaires

MODOC COUNTY
DIVERSION STUDY

Company:_____ **Phone:**_____

Contact:_____ **Dept:** _____

Address_____

In operation since (date): _____

We appreciate your assistance in this project. Information regarding specific materials and amounts will be kept confidential with SRI, and will be used to establish overall diversion numbers for Modoc County.

MATERIALS & QUANTITY COLLECTED PER ____ FOR 1991

Type:_____

Total in Tons (1991)_____

Type:_____

Total in Tons (1991)_____

Type:_____

Total in Tons (1991)_____

Type:_____

Total in Tons (1991)_____

Type:_____

Total in Tons (1991)_____

Type:_____

Total in Tons (1991)_____

Does your business fluctuate with the seasons? (market, natural seasons, tourism, etc.) ?

_____

Comments:_____

_____

DIVERSION STUDY FORM
SCHOOLS and GOVERNMENT OFFICES

We appreciate your assistance in this project. Information regarding specific materials and amounts will be kept confidential with SRI, and will be used to establish overall diversion numbers for Modoc County.

School/Agency: _____ **Contact:** _____

Address: _____ **Phone:** _____

Do you have a recycling program in your school/office? _____**Yes** _____ **No**

How long have you been collecting materials? _____

RECYCLING ACTIVITIES

How collected:	Matls Collected Tons/Year	1991	1992	1993
	Aluminum cans			
	CRV Glass			
	Other Recyc. Glass			
	P.E.T. plastic bev.			
	HDPE plastic bev.			
	Office paper			
	Mixed paper			
	Cardboard			
	Other...			

WASTE REDUCTION ACTIVITIES

What kinds of activities do you do in your offices or classrooms to reduce waste?

Activity	YES	NO	Comments
• Use ceramic mugs instead of paper or styrofoam?			
• Do double-sided copying			
• Reuse paper or notepads or scratchpaper			
• Buy retreaded tires for vehicles			
• Have purchasing policies for recycled products; or % recycled content.			
• Other:			

Do you present information or do study units on recycling and waste reduction?

_____

WASTE HAULER SURVEY

For: _____ Phone _____
Name

_____
Company

Solution Resources, Inc. is gathering information on behalf of **Modoc County** in the preparation of the County **Source Reduction and Recycling Element**. Please respond to the following questions regarding wastes and recyclables collected by your company to the best of your knowledge. Your data will be kept confidential by Solution Resources. Your cooperation is very much appreciated.

For 1991, total estimated tons collected: _____

Unincorporated County

Total Accts/Tons/Year	Total Tons	% Resid.	% Comml	% Indtrl
1991 Total Accounts				

City of Alturas

Total Accts/Tons/Year	Total Tons	% Resid.	% Comml	% Indtrl
1991 Total Accounts				

Comments: _____

_____

_____

_____

Appendix F

Program Diversion

Source Reduction Diversion Programs - Short Term

Uninc. Modoc County

Tons/Year

Material	Existing	Public Awareness	New Diversion	Total Tons	% Total WS	% of Current Disposal*
Corrugated Cardboard		2.0	2.0	2.0	0.1%	1.3%
Mixed Paper		1.4	1.4	1.4	0.1%	0.7%
Hi-grade, Computer			0.0	0.0	0.0%	0.0%
Other Paper			0.0	0.0	0.0%	0.0%
Newspaper			0.0	0.0	0.0%	0.0%
Plastics, film		0.3	0.3	0.3	0.0%	0.5%
Other Plastics		0.3	0.3	0.3	0.0%	0.4%
Nonrecycl. glass			0.0	0.0	0.0%	0.0%
Aluminum		0.2	0.2	0.2	0.0%	0.5%
Yard Waste		5.0	5.0	5.0	0.3%	7.0%
Food Waste		3.5	3.5	3.5	0.2%	1.6%
Wood Waste			0.0	0.0	0.0%	0.0%
Tires & Rubber			0.0	0.0	0.0%	0.0%
Textiles/Leather	0.3	2.0	2.0	2.3	0.1%	3.4%
Total Diverted	0.0	14.7	14.7	15.0		
% of Generation	0.0%	0.8%	0.8%	0.8%		

Recycling Diversion Programs - Medium Term

Uninc. Modoc County

Tons/Year

	Existing	Addl S-T Recycling	Outlying TS Res/ & Comml Drop-Off	Alturas Proc. Station	New Diversion	Total Tons	% Total Wastestream	% of Current Disposal*
Corrugated Cardboard			15.0	85.0	100.0	100.0	5.5%	66.8%
Mixed Paper		0.6		20.0	20.0	20.6	1.1%	10.7%
Newspaper			2.2	42.0	44.2	44.2	2.4%	43.7%
Hi-grade, computer		1.6		3.0	3.0	4.6	0.3%	28.0%
Other Paper					0.0	0.0	0.0%	0.0%
HDPE			3.2	8.2	11.4	11.4	0.6%	40.7%
PET	1.8	0.0	3.5	3.5	7.0	8.8	0.5%	64.2%
Film plastic				2.0	2.0	2.0	0.1%	3.3%
Other plastics					0.0	0.0	0.0%	0.0%
CRV glass	64.1	0.8	3.5	25.0	28.5	93.4	5.1%	40.5%
Other Recycl. Glass	26.4		20.0	30.0	50.0	76.4	4.2%	44.4%
Aluminum cans	30.4	0.0	3.2	10.0	13.2	43.6	2.4%	35.5%
Bi-metal containers	12.8		5.0		5.0	17.8	1.0%	62.5%
Ferrous metals	42.6				0.0	42.6	2.3%	0.0%
Non-ferrous	6.0				0.0	6.0	0.3%	0.0%
White goods	18.5				0.0	18.5	1.0%	0.0%
Inert materials					0.0	0.0	0.0%	0.0%
Tires & rubber					0.0	0.0	0.0%	0.0%
Yard Waste					0.0	0.0	0.0%	0.0%
Food waste					0.0	0.0	0.0%	0.0%
Wood waste					0.0	0.0	0.0%	0.0%
Total Diverted	202.6	3.1	55.6	228.7	284.3	490.0	0.3	
Diversion %	**11.1%**	**0.2%**	**3.0%**	**12.5%**	**15.5%**	**26.7%**		

All Diversion Programs - Medium Term Uninc. Modoc County

Tons/Year

	Existing Diversion	S-T Source Reduction	Additional S-T Recycling	M-T Source Reduction	Med-Term Recycling	Scrap Metal Diversion	C&D Recovery	Bulky Waste Recovery	New Diversion	Short & Medium Term	Total Diversion	Percent of Generation	% of Current Disposal
Corrugated Cardboard		2.0		1.0	100.0		1.2		102.2	104.2	104.2	5.7%	69.6%
Mixed Paper		1.4	0.6	1.0	20.0				21.0	23.0	23.0	1.3%	12.3%
Newspaper					44.2				44.2	44.2	44.2	2.4%	43.7%
HI-grade, computer			1.6	0.8	3.0				3.8	5.4	5.4	0.3%	50.1%
Other Paper									0.0	0.0	0.0	0.0%	0.0%
HDPE					11.4				11.4	11.4	11.4	0.6%	40.7%
PET	1.8		0.0		7.0				7.0	7.0	8.8	0.5%	64.6%
Film plastic		0.3		0.2	2.0				2.2	2.5	2.5	0.1%	4.0%
Other plastics		0.3		0.2	0.0				0.2	0.5	0.5	0.0%	0.6%
CRV glass	64.1		0.8		28.5				28.5	29.3	93.4	5.1%	41.7%
Other Recycl. Glass	26.4				50.0				50.0	50.0	76.4	4.2%	44.4%
Nonrecycable Glass									0.0	0.0	0.0	0.0%	0.0%
Aluminum cans	30.7	0.2	0.0	0.2	13.2				13.4	13.6	44.3	2.4%	36.7%
Bi-metal cans	12.8	0.0		3.5	5.0				8.5	8.5	21.3	1.2%	10.6%
Ferrous metals	42.6	0.0		2.3		39.2	0.5	0.5	42.5	42.5	85.1	4.6%	65.2%
Non-ferrous	6.0					8.0	5.6		13.6	13.6	19.6	1.1%	38.5%
White goods	18.5					7.0			7.0	7.0	0.0	0.0%	72.9%
Inert materials							18.2		18.2	18.2	18.2	1.0%	41.2%
Tires & rubber				5.8					5.8	5.8	5.8	0.3%	15.0%
Food waste		3.5		3.2					3.2	6.7	6.7	0.4%	3.0%
Textiles & Leather	0.3	2.0		4.8				6.0	10.8	12.8	13.1	0.7%	22.0%
Yard Waste		5.0		5.0					5.0	10.0	10.0	0.5%	13.9%
Wood waste				1.0			15.0		16.0	16.0	16.0	0.9%	27.6%
Bulky Items/Furniture								12.2	12.2	12.2	12.2	0.7%	25.7%
Total Tons	203.2	14.7	3.0	28.9	284.3	54.2	40.5	18.7	414.4	432.1	609.8		
Diversion %	11.1%	0.8%	0.2%	1.6%	15.5%	3.0%	2.2%	1.0%	22.6%	23.6%	33.3%		

Source Reduction Diversion Programs - Short Term

City of Alturas

Tons/Year

Material	Base-Year Diversion	Public Awareness	Government Procur/Nonproc.	New Diversion	Total Tons	%	% of Current Disposal*
Corrugated Cardboard		2.0		2.0	2	0.1%	1.4%
Mixed Paper		0.0	2.2	2.2	2.2	0.1%	1.3%
Hi-grade, Computer		0.5	4.0	4.5	4.5	0.3%	16.5%
Other Paper				0.0	0.0	0.0%	0.0%
Newspaper				0.0	0.0	0.0%	0.0%
Plastics, film		0.3		0.3	0.3	0.0%	0.7%
Polystyrene	0.1	0.3		0.3	0.4	0.0%	1.0%
Nonrecycl. glass				0.0	0.0	0.0%	0.0%
CRV aluminum				0.0	0.0	0.0%	0.0%
Yard Waste		8.2		8.2	8.2	0.5%	6.2%
Food Waste		3.0		3.0	3.0	0.2%	1.5%
Wood Waste				0.0	0.0	0.0%	0.0%
Tires & Rubber		0.3	5.0	5.3	5.3	0.3%	14.4%
Textiles/Leather	0.3	5.0		5.0	5.3	0.3%	7.3%
Total Diverted	0.4	19.6	11.2	30.8	31.2		
% of Generation	0.0%	1.0%	0.6%	1.6%	1.7%		

Recycling Diversion Programs - Medium Term

City of Alturas

	Tons/Year					Tons/Year		
	Base-Year Diversion	Addl S-T Recycling	Alturas Recyc. Drop-Off	Alturas Proc. Station	New Diversion	Total Tons	% Total WS	% of Current Disposal*
Corrugated Cardboard	114.3		15.0	63.0	78.0	192.3	10.5%	54.9%
Mixed Paper				27.0	27.0	27.0	1.5%	16.2%
Newspaper			3.2	45.0	48.2	48.2	2.6%	38.4%
Hi-grade, computer		2.7			0.0	2.7	0.1%	0.0%
Other Paper					0.0	0.0	0.0%	0.0%
HDPE			2.8	6.0	8.8	8.8	0.5%	74.6%
PET	0.9		3.2	2.5	5.7	6.6	0.4%	96.6%
Film plastic				2.0	2.0	2.0	0.1%	4.4%
Other plastics					0.0	0.0	0.0%	0.0%
CRV glass	32.0	1.1	3.5	10.0	13.5	46.6	2.5%	42.3%
Other Recycl. Glass	13.2		22.0	25.0	47.0	60.2	3.3%	77.0%
Aluminum cans	15.2	0.1	3.2	6.0	9.2	24.5	1.3%	70.8%
Tin cans	9.9		4.2	2.0	6.2	16.1	0.9%	86.1%
Ferrous metals	23.8				0.0	23.8	1.3%	0.0%
Non-ferrous	0.0				0.0	0.0	0.0%	0.0%
White goods	9.2				0.0	9.2	0.5%	0.0%
Inert materials					0.0	0.0	0.0%	0.0%
Tires & rubber					0.0	0.0	0.0%	0.0%
Yard Waste					0.0	0.0	0.0%	0.0%
Food waste					0.0	0.0	0.0%	0.0%
Wood waste					0.0	0.0	0.0%	0.0%
Total Diverted	218.5	3.8	57.1	188.5	245.6	468.0	0.3	
Diversion %	**11.6%**	**0.2%**	**3.0%**	**10.0%**	**13.0%**	**24.9%**		

All Diversion Programs - Medium Term **City of Alturas**

Tons/Year

	Base-Year Diversion	S-T Source Reduction	Additional S-T Recycling	M-T Source Reduction	Med-Term Recycling	Scrap Metal Diversion	C&D Recovery	Bulky Waste Recovery	New Diversion	Short & Medium Term	Total Diversion	Percent of Generation	% of Remaining Disposal
Corrugated Cardboard	114.3	2.0		2.0	80.0		1.2		83.2	85.2	199.5	10.6%	60.0%
Mixed Paper		2.2	0.0	2.5	27.0				29.5	31.7	31.7	1.7%	19.1%
Newspaper		4.5		5.0	48.2				53.2	57.7	57.7	3.1%	46.0%
HI-grade, computer			2.7		3.5				3.5	6.2	6.2	0.3%	22.7%
Other Paper									0.0	0.0	0.0	0.0%	0.0%
HDPE					9.2				9.2	9.2	9.2	0.5%	78.0%
PET	0.9		0.0		5.7				5.7	5.7	6.6	0.4%	97.3%
Film plastic		0.3		0.5	2.0				2.5	2.8	2.8	0.1%	6.2%
Other plastics	0.1	0.3		0.5					0.5	0.8	0.9	0.0%	2.7%
CRV glass	32.0		1.1		16.3				16.3	17.4	49.4	2.6%	54.4%
Other Recycl. Glass	13.2				45.0				45.0	45.0	58.2	3.1%	73.8%
Nonrecycable Glass									0.0	0.0	0.0	0.0%	0.0%
Aluminum cans	15.2		0.1	0.0	9.2				9.2	9.3	24.5	1.3%	71.2%
Tin cans	9.9	0.0		2.0	4.5				6.5	6.5	16.4	0.9%	90.3%
Ferrous metals	23.8	0.0		2.3		26.0	0.5	0.3	29.1	29.1	52.9	2.8%	80.9%
Non-ferrous	0.0					0.0	5.6		5.6	5.6	5.6	0.3%	80.0%
White goods	9.2					30.0			30.0	30.0	0.0	0.0%	67.3%
Inert materials							8.0		8.0	8.0	8.0	0.4%	13.1%
Tires & rubber		5.3		2.0					2.0	7.3	7.3	0.4%	19.8%
Food waste		3.0		5.5					5.5	8.5	8.5	0.5%	4.1%
Textiles & Leather	0.3	5.0		7.5				7.5	15.0	20.0	20.3	1.1%	29.4%
Yard Waste		8.2		10.0					10.0	18.2	18.2	1.0%	13.7%
Wood waste				1.0			23.0		24.0	24.0	24.0	1.3%	15.5%
Bulky Items/Furniture								18.2	18.2	18.2	18.2	1.0%	34.3%
Total Tons	218.9	30.8	3.9	40.8	250.6	56.0	38.3	26.0	393.5	428.1	626.0		
Diversion %	11.6%	1.6%	0.2%	2.2%	13.3%	3.0%	2.0%	1.4%	20.9%	22.7%	33.3%		

Appendix G

15-Year Tables - Existing Conditions
Modoc County & City of Alturas

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	1991				1992			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	152	0	152	0.0%	154	0	154	0.0%
Mixed Paper	189	0	189	0.0%	192	0	192	0.0%
Newspaper	103	0	103	0.0%	104	0	104	0.0%
Hi-Grade, computer	11	0	11	0.0%	11	0	11	0.0%
Other Paper	28	0	28	0.0%	28	0	28	0.0%
Subtotal	482	0	482	0.0%	489	0	489	0.0%
Plastic								
HDPE	28	0	28	0.0%	29	0	29	0.0%
PET	11	2	13	14.2%	11	2	13	14.2%
Film plastics	62	0	62	0.0%	63	0	63	0.0%
Other plastics	75	0	75	0.0%	76	0	76	0.0%
Subtotal	177	2	178	1.0%	179	2	181	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	71	65	136	47.7%	72	66	138	47.7%
Other recyclable glass	114	27	141	19.0%	116	27	143	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	187	92	279	32.9%	190	93	283	32.9%
Metals								
Aluminum cans	38	31	68	44.9%	38	31	69	44.9%
Bi-Metal	8	20	28	71.2%	8	20	29	71.2%
Ferrous metals	66	43	109	39.5%	67	44	111	39.5%
Non-ferrous metals	36	6	42	14.5%	36	6	43	14.5%
White Goods	0	19	19	0.0%	0	19	19	0.0%
Subtotal	148	119	267	44.6%	150	121	270	44.6%
Yard Waste	73	0	73	0.0%	74	0	74	0.0%
Organics								
Food waste	227	0	227	0.0%	230	0	230	0.0%
Tires & Rubber	39	0	39	0.0%	40	0	40	0.0%
Wood	59	0	59	0.0%	60	0	60	0.0%
Manure	8	0	8	0.0%	8	0	8	0.0%
Textiles & leather	59	0	59	0.0%	60	0	60	0.0%
Miscellaneous	21	0	21	0.0%	21	0	21	0.0%
Subtotal	392	0	392	0.0%	397	0	397	0.0%
Other Wastes								
Inert Solids	45	0	44	0.0%	45	0	45	0.0%
HHW	25	0	25	0.0%	25	0	25	0.0%
Subtotal	70	0	69	0.0%	71	0	71	0.0%
Special Wastes								
Ash	9	0	9	0.0%	10	0	10	0.0%
Auto Shred Parts	7	0	7	0.0%	7	0	7	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	48	0	48	0.0%	49	0	49	0.0%
Other Special(Disp. Diap.)	32	0	32	0.0%	32	0	32	0.0%
Subtotal	96	0	96	0.0%	98	0	98	0.0%
Total Waste	1,625	212	1,836	11.6%	1,647	215	1,863	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	1993				1994			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	156	0	156	0.0%	158	0	158	0.0%
Mixed Paper	195	0	195	0.0%	197	0	197	0.0%
Newspaper	105	0	105	0.0%	107	0	107	0.0%
Hi-Grade, computer	11	0	11	0.0%	11	0	11	0.0%
Other Paper	29	0	29	0.0%	29	0	29	0.0%
Subtotal	496	0	496	0.0%	503	0	503	0.0%
Plastic								
HDPE Containers	29	0	29	0.0%	30	0	30	0.0%
PET containers	11	2	13	14.2%	12	2	13	14.2%
Film plastics	64	0	64	0.0%	65	0	65	0.0%
Other plastics	77	0	77	0.0%	78	0	78	0.0%
Subtotal	182	2	183	1.0%	184	2	186	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	73	67	140	47.7%	74	68	142	47.7%
Other recyclable glass	117	27	145	19.0%	119	28	147	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	192	94	287	32.9%	195	96	291	32.9%
Metals								
Aluminum cans	39	32	70	44.9%	39	32	71	44.9%
Tin cans	8	21	29	71.2%	8	21	29	71.2%
Ferrous metals	68	44	112	39.5%	69	45	114	39.5%
Non-ferrous metals	37	6	43	14.5%	37	6	44	14.5%
White Goods	0	19	19	0.0%	0	20	20	0.0%
Subtotal	152	122	274	44.6%	154	124	278	44.6%
Yard Waste	75	0	75	0.0%	76	0	76	0.0%
Organics								
Food waste	234	0	234	0.0%	237	0	237	0.0%
Tires & Rubber	40	0	40	0.0%	41	0	41	0.0%
Wood	60	0	60	0.0%	61	0	61	0.0%
Manure	8	0	8	0.0%	8	0	8	0.0%
Textiles & leather	61	0	61	0.0%	62	0	62	0.0%
Miscellaneous	21	0	21	0.0%	22	0	22	0.0%
Subtotal	403	0	403	0.0%	409	0	409	0.0%
Other Wastes								
Inert Solids	46	0	46	0.0%	47	0	47	0.0%
HHW	26	0	26	0.0%	26	0	26	0.0%
Subtotal	72	0	72	0.0%	73	0	73	0.0%
Special Wastes								
Ash	10	0	10	0.0%	10	0	10	0.0%
Auto Shred Parts	7	0	7	0.0%	7	0	7	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	50	0	50	0.0%	50	0	50	0.0%
Other Special(Disp. Diap.)	33	0	33	0.0%	33	0	33	0.0%
Subtotal	99	0	99	0.0%	100	0	100	0.0%
Total Waste	1,670	218	1,889	11.6%	1,694	221	1,915	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	1995				1996			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	161	0	161	0.0%	163	0	163	0.0%
Mixed Paper	200	0	200	0.0%	203	0	203	0.0%
Newspaper	108	0	108	0.0%	110	0	110	0.0%
Hi-Grade, computer	11	0	11	0.0%	12	0	12	0.0%
Other Paper	29	0	29	0.0%	30	0	30	0.0%
Subtotal	510	0	510	0.0%	517	0	517	0.0%
Plastic								
HDPE Containers	30	0	30	0.0%	30	0	30	0.0%
PET containers	12	2	14	14.2%	12	2	14	14.2%
Film plastics	65	0	65	0.0%	66	0	66	0.0%
Other plastics	80	0	80	0.0%	81	0	81	0.0%
Subtotal	187	2	189	1.0%	189	2	191	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	75	69	144	47.7%	76	70	146	47.7%
Other recyclable glass	121	28	149	19.0%	122	29	151	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	198	97	295	32.9%	201	98	299	32.9%
Metals								
Aluminum cans	40	33	72	44.9%	40	33	73	44.9%
Tin cans	9	21	30	71.2%	9	21	30	71.2%
Ferrous metals	70	46	116	39.5%	71	46	117	39.5%
Non-ferrous metals	38	6	44	14.5%	38	7	45	14.5%
White Goods	0	20	20	0.0%	0	20	20	0.0%
Subtotal	156	126	282	44.6%	158	127	286	44.6%
Yard Waste	77	0	77	0.0%	78	0	78	0.0%
Organics								
Food waste	240	0	240	0.0%	243	0	243	0.0%
Tires & Rubber	41	0	41	0.0%	42	0	42	0.0%
Wood	62	0	62	0.0%	63	0	63	0.0%
Manure	8	0	8	0.0%	8	0	8	0.0%
Textiles & leather	63	0	63	0.0%	63	0	63	0.0%
Miscellaneous	22	0	22	0.0%	22	0	22	0.0%
Subtotal	414	0	414	0.0%	420	0	420	0.0%
Other Wastes								
Inert Solids	47	0	47	0.0%	48	0	48	0.0%
HHW	26	0	26	0.0%	27	0	27	0.0%
Subtotal	74	0	74	0.0%	75	0	75	0.0%
Special Wastes								
Ash	10	0	10	0.0%	10	0	10	0.0%
Auto Shred Parts	7	0	7	0.0%	7	0	7	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	51	0	51	0.0%	52	0	52	0.0%
Other Special(Disp. Diap.)	34	0	34	0.0%	34	0	34	0.0%
Subtotal	102	0	102	0.0%	103	0	103	0.0%
Total Waste	1,718	224	1,942	11.6%	1,742	228	1,969	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	1997				1998			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	165	0	165	0.0%	167	0	167	0.0%
Mixed Paper	206	0	206	0.0%	209	0	209	0.0%
Newspaper	111	0	111	0.0%	113	0	113	0.0%
Hi-Grade, computer	12	0	12	0.0%	12	0	12	0.0%
Other Paper	30	0	30	0.0%	31	0	31	0.0%
Subtotal	524	0	524	0.0%	532	0	532	0.0%
Plastic								
HDPE Containers	31	0	31	0.0%	31	0	31	0.0%
PET containers	12	2	14	14.2%	12	2	14	14.2%
Film plastics	67	0	67	0.0%	68	0	68	0.0%
Other plastics	82	0	82	0.0%	83	0	83	0.0%
Subtotal	192	2	194	1.0%	195	2	197	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	78	71	148	47.7%	79	72	150	47.7%
Other recyclable glass	124	29	153	19.0%	126	29	155	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	203	100	303	32.9%	206	101	307	32.9%
Metals								
Aluminum cans	41	33	74	44.9%	42	34	75	44.9%
Tin cans	9	22	31	71.2%	9	22	31	71.2%
Ferrous metals	72	47	119	39.5%	73	48	121	39.5%
Non-ferrous metals	39	7	46	14.5%	39	7	46	14.5%
Other metals	0	20	20	0.0%	0	21	21	0.0%
Subtotal	161	129	290	44.6%	163	131	294	44.6%
Yard Waste	79	0	79	0.0%	80	0	80	0.0%
Organics								
Food waste	247	0	247	0.0%	250	0	250	0.0%
Tires & Rubber	43	0	43	0.0%	43	0	43	0.0%
Wood	64	0	64	0.0%	65	0	65	0.0%
Manure	8	0	8	0.0%	8	0	8	0.0%
Textiles & leather	64	0	64	0.0%	65	0	65	0.0%
Miscellaneous	23	0	23	0.0%	23	0	23	0.0%
Subtotal	426	0	426	0.0%	432	0	432	0.0%
Other Wastes								
Inert Solids	49	0	49	0.0%	49	0	49	0.0%
HHW	27	0	27	0.0%	28	0	28	0.0%
Subtotal	76	0	76	0.0%	77	0	77	0.0%
Special Wastes								
Ash	10	0	10	0.0%	10	0	10	0.0%
Auto Shred Parts	8	0	8	0.0%	8	0	8	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	52	0	52	0.0%	53	0	53	0.0%
Other Special(Disp. Diap.)	35	0	35	0.0%	35	0	35	0.0%
Subtotal	105	0	105	0.0%	106	0	106	0.0%
Total Waste	1,766	231	1,997	11.6%	1,791	234	2,025	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	1999				2000			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	170	0	170	0.0%	172	0	172	0.0%
Mixed Paper	211	0	211	0.0%	214	0	214	0.0%
Newspaper	115	0	115	0.0%	116	0	116	0.0%
Hi-Grade, computer	12	0	12	0.0%	12	0	12	0.0%
Other Paper	31	0	31	0.0%	31	0	31	0.0%
Subtotal	539	0	539	0.0%	547	0	547	0.0%
Plastic								
HDPE Containers	32	0	32	0.0%	32	0	32	0.0%
PET containers	12	2	14	14.2%	13	2	15	14.2%
Film plastics	69	0	69	0.0%	70	0	70	0.0%
Other plastics	84	0	84	0.0%	85	0	85	0.0%
Subtotal	197	2	199	1.0%	200	2	202	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	80	73	152	47.7%	81	74	154	47.7%
Other recyclable glass	127	30	157	19.0%	129	30	160	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	209	102	312	32.9%	212	104	316	32.9%
Metals								
Aluminum cans	42	34	77	44.9%	43	35	78	44.9%
Tin cans	9	22	31	71.2%	9	23	32	71.2%
Ferrous metals	74	48	122	39.5%	75	49	124	39.5%
Non-ferrous metals	40	7	47	14.5%	41	7	48	14.5%
White Goods	0	21	21	0.0%	0	21	21	0.0%
Subtotal	165	133	298	44.6%	168	135	302	44.6%
Yard Waste	81	0	81	0.0%	82	0	82	0.0%
Organics								
Food waste	254	0	254	0.0%	257	0	257	0.0%
Tires & Rubber	44	0	44	0.0%	44	0	44	0.0%
Wood	66	0	66	0.0%	67	0	67	0.0%
Manure	9	0	9	0.0%	9	0	9	0.0%
Textiles & leather	66	0	66	0.0%	67	0	67	0.0%
Miscellaneous	23	0	23	0.0%	24	0	24	0.0%
Subtotal	438	0	438	0.0%	444	0	444	0.0%
Other Wastes								
Inert Solids	50	0	50	0.0%	51	0	51	0.0%
HHW	28	0	28	0.0%	28	0	28	0.0%
Subtotal	78	0	78	0.0%	79	0	79	0.0%
Special Wastes								
Ash	10	0	10	0.0%	11	0	11	0.0%
Auto Shred Parts	8	0	8	0.0%	8	0	8	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	54	0	54	0.0%	55	0	55	0.0%
Other Special(Disp. Diap.)	36	0	36	0.0%	36	0	36	0.0%
Subtotal	108	0	108	0.0%	109	0	109	0.0%
Total Waste	1,816	237	2,053	11.6%	1,841	241	2,082	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	2001				2002			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	175	0	175	0.0%	177	0	177	0.0%
Mixed Paper	217	0	217	0.0%	220	0	220	0.0%
Newspaper	118	0	118	0.0%	120	0	120	0.0%
Hi-Grade, computer	12	0	12	0.0%	13	0	13	0.0%
Other Paper	32	0	32	0.0%	32	0	32	0.0%
Subtotal	554	0	554	0.0%	562	0	562	0.0%
Plastic								
HDPE Containers	33	0	33	0.0%	33	0	33	0.0%
PET containers	13	2	15	14.2%	13	2	15	14.2%
Film plastics	71	0	71	0.0%	72	0	72	0.0%
Other plastics	86	0	86	0.0%	88	0	88	0.0%
Subtotal	203	2	205	1.0%	206	2	208	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	82	75	157	47.7%	83	76	159	47.7%
Other recyclable glass	131	31	162	19.0%	133	31	164	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	215	105	320	32.9%	218	107	325	32.9%
Metals								
Aluminum cans	43	35	79	44.9%	44	36	80	44.9%
Tin cans	9	23	32	71.2%	9	23	33	71.2%
Ferrous metals	76	50	126	39.5%	77	50	127	39.5%
Non-ferrous metals	41	7	48	14.5%	42	7	49	14.5%
White Goods	0	22	22	0.0%	0	22	22	0.0%
Subtotal	170	137	306	44.6%	172	138	311	44.6%
Yard Waste	84	0	84	0.0%	85	0	85	0.0%
Organics								
Food waste	261	0	261	0.0%	265	0	265	0.0%
Tires & Rubber	45	0	45	0.0%	46	0	46	0.0%
Wood	67	0	67	0.0%	68	0	68	0.0%
Manure	9	0	9	0.0%	9	0	9	0.0%
Textiles & leather	68	0	68	0.0%	69	0	69	0.0%
Miscellaneous	24	0	24	0.0%	24	0	24	0.0%
Subtotal	450	0	450	0.0%	457	0	457	0.0%
Other Wastes								
Inert Solids	52	0	52	0.0%	52	0	52	0.0%
HHW	29	0	29	0.0%	29	0	29	0.0%
Subtotal	80	0	80	0.0%	81	0	81	0.0%
Special Wastes								
Ash	11	0	11	0.0%	11	0	11	0.0%
Auto Shred Parts	8	0	8	0.0%	8	0	8	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	55	0	55	0.0%	56	0	56	0.0%
Other Special(Disp. Diap.)	37	0	37	0.0%	37	0	37	0.0%
Subtotal	111	0	111	0.0%	112	0	112	0.0%
Total Waste	1,867	244	2,111	11.6%	1,893	247	2,141	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	2003				2004			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	179	0	179	0.0%	182	0	182	0.0%
Mixed Paper	224	0	224	0.0%	227	0	227	0.0%
Newspaper	121	0	121	0.0%	123	0	123	0.0%
Hi-Grade, computer	13	0	13	0.0%	13	0	13	0.0%
Other Paper	33	0	33	0.0%	33	0	33	0.0%
Subtotal	570	0	570	0.0%	578	0	578	0.0%
Plastic								
HDPE Containers	34	0	34	0.0%	34	0	34	0.0%
PET containers	13	2	15	14.2%	13	2	15	14.2%
Film plastics	73	0	73	0.0%	74	0	74	0.0%
Other plastics	89	0	89	0.0%	90	0	90	0.0%
Subtotal	209	2	211	1.0%	212	2	214	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	84	77	161	47.7%	85	78	163	47.7%
Other recyclable glass	135	32	166	19.0%	137	32	169	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	221	108	329	32.9%	224	110	334	32.9%
Metals								
Aluminum cans	45	36	81	44.9%	45	37	82	44.9%
Tin cans	10	24	33	71.2%	10	24	34	71.2%
Ferrous metals	78	51	129	39.5%	79	52	131	39.5%
Non-ferrous metals	42	7	50	14.5%	43	7	50	14.5%
White Goods	0	22	22	0.0%	0	22	22	0.0%
Subtotal	175	140	315	44.6%	177	142	319	44.6%
Yard Waste	86	0	86	0.0%	87	0	87	0.0%
Organics								
Food waste	268	0	268	0.0%	272	0	272	0.0%
Tires & Rubber	46	0	46	0.0%	47	0	47	0.0%
Wood	69	0	69	0.0%	70	0	70	0.0%
Manure	9	0	9	0.0%	9	0	9	0.0%
Textiles & leather	70	0	70	0.0%	71	0	71	0.0%
Miscellaneous	25	0	25	0.0%	25	0	25	0.0%
Subtotal	463	0	463	0.0%	470	0	470	0.0%
Other Wastes								
Inert Solids	53	0	53	0.0%	54	0	54	0.0%
HHW	30	0	30	0.0%	30	0	30	0.0%
Subtotal	83	0	83	0.0%	84	0	84	0.0%
Special Wastes								
Ash	11	0	11	0.0%	11	0	11	0.0%
Auto Shred Parts	8	0	8	0.0%	8	0	8	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	57	0	57	0.0%	58	0	58	0.0%
Other Special(Disp. Diap.)	38	0	38	0.0%	38	0	38	0.0%
Subtotal	114	0	114	0.0%	115	0	115	0.0%
Total Waste	1,920	251	2,171	11.6%	1,947	254	2,201	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - Modoc County

Existing Conditions

WASTE TYPE	2005				2006			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	185	0	185	0.0%	187	0	187	0.0%
Mixed Paper	230	0	230	0.0%	233	0	233	0.0%
Newspaper	125	0	125	0.0%	126	0	126	0.0%
Hi-Grade, computer	13	0	13	0.0%	13	0	13	0.0%
Other Paper	34	0	34	0.0%	34	0	34	0.0%
Subtotal	586	0	586	0.0%	594	0	594	0.0%
Plastic								
HDPE Containers	34	0	34	0.0%	35	0	35	0.0%
PET containers	13	2	16	14.2%	14	2	16	14.2%
Film plastics	75	0	75	0.0%	76	0	76	0.0%
Other plastics	91	0	91	0.0%	93	0	93	0.0%
Subtotal	215	2	217	1.0%	218	2	220	1.0%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	87	79	166	47.7%	88	80	168	47.7%
Other recyclable glass	139	32	171	19.0%	141	33	173	19.0%
Other non-recyclable glass	2	0	2	0.0%	2	0	2	0.0%
Subtotal	227	111	339	32.9%	230	113	343	32.9%
Metals								
Aluminum cans	46	37	83	44.9%	46	38	84	44.9%
Tin cans	10	24	34	71.2%	10	25	35	71.2%
Ferrous metals	80	52	133	39.5%	81	53	135	39.5%
Non-ferrous metals	44	7	51	14.5%	44	7	52	14.5%
White Goods	0	23	23	0.0%	0	23	23	0.0%
Subtotal	180	144	324	44.6%	182	146	328	44.6%
Yard Waste	88	0	88	0.0%	90	0	90	0.0%
Organics								
Food waste	276	0	276	0.0%	280	0	280	0.0%
Tires & Rubber	48	0	48	0.0%	48	0	48	0.0%
Wood	71	0	71	0.0%	72	0	72	0.0%
Manure	9	0	9	0.0%	9	0	9	0.0%
Textiles & leather	72	0	72	0.0%	73	0	73	0.0%
Miscellaneous	25	0	25	0.0%	26	0	26	0.0%
Subtotal	476	0	476	0.0%	483	0	483	0.0%
Other Wastes								
Inert Solids	54	0	54	0.0%	55	0	55	0.0%
HHW	30	0	30	0.0%	31	0	31	0.0%
Subtotal	85	0	85	0.0%	86	0	86	0.0%
Special Wastes								
Ash	11	0	11	0.0%	12	0	12	0.0%
Auto Shred Parts	8	0	8	0.0%	9	0	9	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Bulky Items	59	0	59	0.0%	59	0	59	0.0%
Other Special(Disp. Diap.)	39	0	39	0.0%	39	0	39	0.0%
Subtotal	117	0	117	0.0%	119	0	119	0.0%
Total Waste	1,974	258	2,232	11.6%	2,001	262	2,263	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	1991				1992			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	144	115	259	44.6%	145	117	262	44.6%
Mixed Paper	168	0	168	0.0%	170	0	170	0.0%
Newspaper	127	0	127	0.0%	128	0	128	0.0%
Hi-Grade, Computer	28	0	28	0.0%	28	0	28	0.0%
Other Paper	119	0	119	0.0%	120	0	120	0.0%
Subtotal	584	115	700	16.5%	590	117	707	16.5%
Plastic								
HDPE	12	0	12	0.0%	12	0	12	0.0%
PET	6	1	7	13.2%	6	1	7	13.2%
Polystyrene Foam	0	0	0	#NUM!	0	0	0	0.0%
Film plastics	46	0	46	0.0%	46	0	46	0.0%
Other plastics	30	0	30	0.3%	31	0	31	0.3%
Subtotal	94	1	95	1.1%	95	1	96	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	32	32	65	50.1%	33	33	65	50.1%
Other recyclable glass	62	13	75	17.8%	62	13	76	17.8%
Other non-recyclable glass	8	0	8	0.0%	9	0	9	0.0%
Subtotal	102	46	148	30.9%	103	46	149	30.9%
Metals								
Aluminum cans	13	15	28	53.9%	13	16	29	53.9%
Bi-Metal	7	10	17	57.9%	7	10	17	57.9%
Ferrous metals	36	20	56	35.5%	37	20	57	35.5%
Non-ferrous metals	7	0	7	0.0%	7	0	7	0.0%
White Goods	45	13	58	22.8%	45	13	59	22.8%
Subtotal	109	59	167	35.0%	110	59	169	35.0%
Yard Waste	134	0	134	0.0%	136	0	136	0.0%
Organics								
Food waste	208	0	208	0.0%	210	0	210	0.0%
Tires & Rubber	37	0	37	0.0%	38	0	38	0.0%
Wood	156	0	156	0.0%	158	0	158	0.0%
Manure	5	0	5	0.0%	5	0	5	0.0%
Textiles & leather	69	0	69	0.4%	69	0	70	0.4%
Miscellaneous	17	0	17	0.0%	17	0	17	0.0%
Subtotal	492	0	492	0.1%	497	0	497	0.1%
Other Wastes								
Inert solids	62	0	62	0.0%	62	0	62	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	62	0	62	0.0%	62	0	62	0.0%
Special Wastes								
Ash	24	0	24	0.0%	24	0	24	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	54	0	54	0.0%	54	0	54	0.0%
Other Special/Diapers	25	0	25	0.0%	25	0	25	0.0%
Subtotal	103	0	103	0.0%	104	0	104	0.0%
Total Waste	1,680	221	1,901	11.6%	1,697	223	1,920	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	1993				1994			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	146	118	264	44.6%	148	119	267	44.6%
Mixed Paper	171	0	171	0.0%	173	0	173	0.0%
Newspaper	129	0	129	0.0%	130	0	130	0.0%
Hi-Grade, Computer	28	0	28	0.0%	28	0	28	0.0%
Other Paper	121	0	121	0.0%	122	0	122	0.0%
Subtotal	596	118	714	16.5%	602	119	721	16.5%
Plastic								
HDPE Containers	12	0	12	0.0%	12	0	12	0.0%
PET containers	6	1	7	13.2%	6	1	7	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	47	0	47	0.0%	47	0	47	0.0%
Other plastics	31	0	31	0.3%	31	0	31	0.3%
Subtotal	96	1	97	1.1%	97	1	98	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	33	33	66	50.1%	33	33	66	50.1%
Other recyclable glass	63	14	76	17.8%	63	14	77	17.8%
Other non-recyclable glass	9	0	9	0.0%	9	0	9	0.0%
Subtotal	104	47	151	30.9%	105	47	152	30.9%
Metals								
Aluminum cans	13	16	29	53.9%	14	16	29	53.9%
Bi-Metal	7	10	18	57.9%	7	10	18	57.9%
Ferrous metals	37	20	57	35.5%	37	21	58	35.5%
Non-ferrous metals	7	0	7	0.0%	7	0	7	0.0%
White Goods	46	14	60	22.8%	46	14	60	22.8%
Subtotal	111	60	171	35.0%	112	60	173	35.0%
Yard Waste	137	0	137	0.0%	139	0	139	0.0%
Organics								
Food waste	212	0	212	0.0%	214	0	214	0.0%
Tires & Rubber	38	0	38	0.0%	38	0	38	0.0%
Wood	159	0	159	0.0%	161	0	161	0.0%
Manure	5	0	5	0.0%	5	0	5	0.0%
Textiles & leather	70	0	70	0.4%	71	0	71	0.4%
Miscellaneous	18	0	18	0.0%	18	0	18	0.0%
Subtotal	502	0	502	0.1%	507	0	507	0.1%
Other Wastes								
Inert solids	63	0	63	0.0%	64	0	64	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	63	0	63	0.0%	64	0	64	0.0%
Special Wastes								
Ash	25	0	25	0.0%	25	0	25	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	55	0	55	0.0%	55	0	55	0.0%
Other Special/Diapers	25	0	25	0.0%	26	0	26	0.0%
Subtotal	105	0	105	0.0%	106	0	106	0.0%
Total Waste	1,714	226	1,939	11.6%	1,731	228	1,959	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	1995				1996			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	149	120	269	44.6%	151	121	272	44.6%
Mixed Paper	175	0	175	0.0%	177	0	177	0.0%
Newspaper	132	0	132	0.0%	133	0	133	0.0%
Hi-Grade, Computer	29	0	29	0.0%	29	0	29	0.0%
Other Paper	123	0	123	0.0%	125	0	125	0.0%
Subtotal	608	120	728	16.5%	614	121	735	16.5%
Plastic								
HDPE Containers	12	0	12	0.0%	13	0	13	0.0%
PET containers	6	1	7	13.2%	6	1	7	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	48	0	48	0.0%	48	0	48	0.0%
Other plastics	31	0	32	0.3%	32	0	32	0.3%
Subtotal	98	1	99	1.1%	99	1	100	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	34	34	67	50.1%	34	34	68	50.1%
Other recyclable glass	64	14	78	17.8%	65	14	79	17.8%
Other non-recyclable glass	9	0	9	0.0%	9	0	9	0.0%
Subtotal	106	48	154	30.9%	108	48	156	30.9%
Metals								
Aluminum cans	14	16	30	53.9%	14	16	30	53.9%
Bi-Metal	8	10	18	57.9%	8	11	18	57.9%
Ferrous metals	38	21	59	35.5%	38	21	59	35.5%
Non-ferrous metals	7	0	7	0.0%	7	0	7	0.0%
White Goods	47	14	61	22.8%	47	14	61	22.8%
Subtotal	113	61	174	35.0%	114	62	176	35.0%
Yard Waste	140	0	140	0.0%	141	0	141	0.0%
Organics								
Food waste	216	0	216	0.0%	218	0	218	0.0%
Tires & Rubber	39	0	39	0.0%	39	0	39	0.0%
Wood	162	0	162	0.0%	164	0	164	0.0%
Manure	5	0	5	0.0%	5	0	5	0.0%
Textiles & leather	72	0	72	0.4%	72	0	73	0.4%
Miscellaneous	18	0	18	0.0%	18	0	18	0.0%
Subtotal	512	0	512	0.1%	517	0	517	0.1%
Other Wastes								
Inert solids	64	0	64	0.0%	65	0	65	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	64	0	64	0.0%	65	0	65	0.0%
Special Wastes								
Ash	25	0	25	0.0%	25	0	25	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	56	0	56	0.0%	56	0	56	0.0%
Other Special/Diapers	26	0	26	0.0%	26	0	26	0.0%
Subtotal	107	0	107	0.0%	108	0	108	0.0%
Total Waste	1,748	230	1,978	11.6%	1,766	232	1,998	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	1997				1998			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	152	123	275	44.6%	154	124	278	44.6%
Mixed Paper	178	0	178	0.0%	180	0	180	0.0%
Newspaper	134	0	134	0.0%	136	0	136	0.0%
Hi-Grade, Computer	29	0	29	0.0%	30	0	30	0.0%
Other Paper	126	0	126	0.0%	127	0	127	0.0%
Subtotal	620	123	743	16.5%	626	124	750	16.5%
Plastic								
HDPE Containers	13	0	13	0.0%	13	0	13	0.0%
PET containers	6	1	7	13.2%	6	1	7	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	48	0	48	0.0%	49	0	49	0.0%
Other plastics	32	0	32	0.3%	32	0	32	0.3%
Subtotal	99	1	101	1.1%	100	1	102	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	34	34	69	50.1%	35	35	69	50.1%
Other recyclable glass	65	14	80	17.8%	66	14	80	17.8%
Other non-recyclable glass	9	0	9	0.0%	9	0	9	0.0%
Subtotal	109	48	157	30.9%	110	49	159	30.9%
Metals								
Aluminum cans	14	16	30	53.9%	14	16	31	53.9%
Bi-Metal	8	11	18	57.9%	8	11	19	57.9%
Ferrous metals	38	21	60	35.5%	39	21	60	35.5%
Non-ferrous metals	8	0	8	0.0%	8	0	8	0.0%
White Goods	48	14	62	22.8%	48	14	63	22.8%
Subtotal	115	62	178	35.0%	117	63	180	35.0%
Yard Waste	143	0	143	0.0%	144	0	144	0.0%
Organics								
Food waste	220	0	220	0.0%	223	0	223	0.0%
Tires & Rubber	40	0	40	0.0%	40	0	40	0.0%
Wood	166	0	166	0.0%	167	0	167	0.0%
Manure	5	0	5	0.0%	5	0	5	0.0%
Textiles & leather	73	0	73	0.4%	74	0	74	0.4%
Miscellaneous	18	0	18	0.0%	19	0	19	0.0%
Subtotal	522	0	523	0.1%	527	0	528	0.1%
Other Wastes								
Inert solids	66	0	66	0.0%	66	0	66	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	66	0	66	0.0%	66	0	66	0.0%
Special Wastes								
Ash	26	0	26	0.0%	26	0	26	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	57	0	57	0.0%	57	0	57	0.0%
Other Special/Diapers	26	0	26	0.0%	27	0	27	0.0%
Subtotal	109	0	109	0.0%	110	0	110	0.0%
Total Waste	1,783	235	2,018	11.6%	1,801	237	2,038	11.6%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	1999				2000			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	155	125	280	44.6%	157	126	283	44.6%
Mixed Paper	182	0	182	0.0%	184	0	184	0.0%
Newspaper	137	0	137	0.0%	139	0	139	0.0%
Hi-Grade, Computer	30	0	30	0.7%	30	0	30	0.7%
Other Paper	128	0	128	0.0%	130	0	130	0.0%
Subtotal	632	125	758	16.5%	639	126	765	16.5%
Plastic								
HDPE Containers	13	0	13	0.0%	13	0	13	0.0%
PET containers	6	1	7	13.2%	7	1	8	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	49	0	49	0.0%	50	0	50	0.0%
Other plastics	33	0	33	0.3%	33	0	33	0.3%
Subtotal	101	1	103	1.1%	103	1	104	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	35	35	70	50.1%	35	36	71	50.7%
Other recyclable glass	67	14	81	17.8%	67	15	82	17.8%
Other non-recyclable glass	9	0	9	0.0%	9	0	9	0.0%
Subtotal	111	49	160	30.9%	111	50	162	31.1%
Metals								
Aluminum cans	14	17	31	53.9%	14	17	31	53.9%
Tin cans	8	11	19	57.9%	8	11	19	57.9%
Ferrous metals	39	22	61	35.5%	40	22	62	35.5%
Non-ferrous metals	8	0	8	0.0%	8	0	8	0.0%
White Goods	49	14	63	22.8%	49	15	64	22.8%
Subtotal	118	64	181	35.0%	119	64	183	35.0%
Yard Waste	146	0	146	0.0%	147	0	147	0.0%
Organics								
Food waste	225	0	225	0.0%	227	0	227	0.0%
Tires & Rubber	40	0	40	0.0%	41	0	41	0.0%
Wood	169	0	169	0.0%	171	0	171	0.0%
Manure	5	0	5	0.0%	6	0	6	0.0%
Textiles & leather	74	0	75	0.4%	75	0	76	0.4%
Miscellaneous	19	0	19	0.0%	19	0	19	0.0%
Subtotal	533	0	533	0.1%	538	0	538	0.1%
Other Wastes								
Inert solids	67	0	67	0.0%	68	0	68	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	67	0	67	0.0%	68	0	68	0.0%
Special Wastes								
Ash	26	0	26	0.0%	27	0	27	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	58	0	58	0.0%	59	0	59	0.0%
Other Special/Diapers	27	0	27	0.0%	27	0	27	0.0%
Subtotal	111	0	111	0.0%	112	0	112	0.0%
Total Waste	1,819	240	2,059	11.6%	1,837	242	2,079	11.7%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	2001				2002			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	159	128	286	44.6%	160	129	289	44.6%
Mixed Paper	186	0	186	0.0%	187	0	187	0.0%
Newspaper	140	0	140	0.0%	141	0	141	0.0%
Hi-Grade, Computer	30	0	30	0.7%	31	0	31	0.7%
Other Paper	131	0	131	0.0%	132	0	132	0.0%
Subtotal	645	128	773	16.5%	652	129	781	16.5%
Plastic								
HDPE Containers	13	0	13	0.0%	13	0	13	0.0%
PET containers	7	1	8	13.2%	7	1	8	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	50	0	50	0.0%	51	0	51	0.0%
Other plastics	33	0	33	0.3%	34	0	34	0.3%
Subtotal	104	1	105	1.1%	105	1	106	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	35	36	71	50.7%	35	37	72	50.7%
Other recyclable glass	68	15	83	17.8%	69	15	84	17.8%
Other non-recyclable glass	9	0	9	0.0%	9	0	9	0.0%
Subtotal	113	51	163	31.1%	114	51	165	31.1%
Metals								
Aluminum cans	15	17	31	53.9%	15	17	32	53.9%
Bi-Metal	8	11	19	57.9%	8	11	19	57.9%
Ferrous metals	40	22	62	35.5%	40	22	63	35.5%
Non-ferrous metals	8	0	8	0.0%	8	0	8	0.0%
White Goods	50	15	64	22.8%	50	15	65	22.8%
Subtotal	120	65	185	35.0%	121	65	187	35.0%
Yard Waste	148	0	148	0.0%	150	0	150	0.0%
Organics								
Food waste	229	0	229	0.0%	232	0	232	0.0%
Tires & Rubber	41	0	41	0.0%	42	0	42	0.0%
Wood	172	0	172	0.0%	174	0	174	0.0%
Manure	6	0	6	0.0%	6	0	6	0.0%
Textiles & leather	76	0	76	0.4%	77	0	77	0.4%
Miscellaneous	19	0	19	0.0%	19	0	19	0.0%
Subtotal	543	0	544	0.1%	549	0	549	0.1%
Other Wastes								
Inert solids	68	0	68	0.0%	69	0	69	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	68	0	68	0.0%	69	0	69	0.0%
Special Wastes								
Ash	27	0	27	0.0%	27	0	27	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	59	0	59	0.0%	60	0	60	0.0%
Other Special/Diapers	28	0	28	0.0%	28	0	28	0.0%
Subtotal	113	0	113	0.0%	115	0	115	0.0%
Total Waste	1,855	245	2,100	11.7%	1,874	247	2,121	11.7%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	2003				2004			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	162	130	292	44.6%	163	131	295	44.6%
Mixed Paper	189	0	189	0.0%	191	0	191	0.0%
Newspaper	143	0	143	0.0%	144	0	144	0.0%
Hi-Grade, Computer	31	0	31	0.7%	31	0	31	0.7%
Other Paper	134	0	134	0.0%	135	0	135	0.0%
Subtotal	658	130	788	16.5%	665	132	796	16.5%
Plastic								
HDPE Containers	13	0	13	0.0%	14	0	14	0.0%
PET containers	7	1	8	13.2%	7	1	8	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	51	0	51	0.0%	52	0	52	0.0%
Other plastics	34	0	34	0.3%	34	0	34	0.3%
Subtotal	106	1	107	1.1%	107	1	108	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	36	37	73	50.7%	36	37	73	50.7%
Other recyclable glass	69	15	84	17.8%	70	15	85	17.8%
Other non-recyclable glass	10	0	10	0.0%	10	0	10	0.0%
Subtotal	115	52	167	31.1%	116	52	168	31.1%
Metals								
Aluminum cans	15	17	32	53.9%	15	17	32	53.9%
Bi-Metal	8	11	19	57.9%	8	11	20	57.9%
Ferrous metals	41	23	63	35.5%	41	23	64	35.5%
Non-ferrous	8	0	8	0.0%	8	0	8	0.0%
White Goods	51	15	66	22.8%	51	15	66	22.8%
Subtotal	123	66	189	35.0%	124	67	191	35.0%
Yard Waste	151	0	151	0.0%	153	0	153	0.0%
Organics								
Food waste	234	0	234	0.0%	236	0	236	0.0%
Tires & Rubber	42	0	42	0.0%	42	0	42	0.0%
Wood	176	0	176	0.0%	177	0	177	0.0%
Manure	6	0	6	0.0%	6	0	6	0.0%
Textiles & leather	78	0	78	0.4%	78	0	79	0.4%
Miscellaneous	19	0	19	0.0%	20	0	20	0.0%
Subtotal	554	0	555	0.1%	560	0	560	0.1%
Other Wastes								
Inert solids	70	0	70	0.0%	70	0	70	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	70	0	70	0.0%	70	0	70	0.0%
Special Wastes								
Ash	27	0	27	0.0%	28	0	28	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	60	0	60	0.0%	61	0	61	0.0%
Other Special/Diapers	28	0	28	0.0%	28	0	28	0.0%
Subtotal	116	0	116	0.0%	117	0	117	0.0%
Total Waste	1,892	250	2,142	11.7%	1,911	252	2,164	11.7%

15 YEAR WASTE GENERATION PROJECTIONS - City of Alturas

- Existing Conditions

WASTE TYPE	2005				2006			
	Disposal	Diversion	Generation	Diversion Percent	Disposal	Diversion	Generation	Diversion Percent
Paper								
Corrugated Containers	165	133	298	44.6%	167	134	301	44.6%
Mixed Paper	193	0	193	0.0%	195	0	195	0.0%
Newspaper	146	0	146	0.0%	147	0	147	0.0%
Hi-Grade, Computer	31	0	32	0.7%	32	0	32	0.7%
Other Paper	136	0	136	0.0%	138	0	138	0.0%
Subtotal	671	133	804	16.5%	678	134	812	16.5%
Plastic								
HDPE Containers	14	0	14	0.0%	14	0	14	0.0%
PET containers	7	1	8	13.2%	7	1	8	13.2%
Polystrene Foam	0	0	0	0.0%	0	0	0	0.0%
Film plastics	52	0	52	0.0%	53	0	53	0.0%
Other plastics	35	0	35	0.3%	35	0	35	0.3%
Subtotal	108	1	109	1.1%	109	1	110	1.1%
Glass								
Refillable glass	0	0	0	0.0%	0	0	0	0.0%
CA redemption glass	37	38	74	50.7%	37	38	75	50.7%
Other recyclable glass	71	15	86	17.8%	72	15	87	17.8%
Other non-recyclable glass	10	0	10	0.0%	10	0	10	0.0%
Subtotal	117	53	170	31.1%	118	53	172	31.1%
Metals								
Aluminum cans	15	18	33	53.9%	15	18	33	53.9%
Bi-Metal	8	11	20	57.9%	8	12	20	57.9%
Ferrous metals	42	23	65	35.5%	42	23	65	35.5%
Non-ferrous metals	8	0	8	0.0%	8	0	8	0.0%
White Goods	52	15	67	22.8%	52	15	68	22.8%
Subtotal	125	67	192	35.0%	126	68	194	35.0%
Yard Waste	155	0	155	0.0%	156	0	156	0.0%
Organics								
Food waste	239	0	239	0.0%	241	0	241	0.0%
Tires & Rubber	43	0	43	0.0%	43	0	43	0.0%
Wood	179	0	179	0.0%	181	0	181	0.0%
Manure	6	0	6	0.0%	6	0	6	0.0%
Textiles & leather	79	0	79	0.4%	80	0	80	0.4%
Miscellaneous	20	0	20	0.0%	20	0	20	0.0%
Subtotal	566	0	566	0.1%	571	0	572	0.1%
Other Wastes								
Inert solids	71	0	71	0.0%	72	0	72	0.0%
HHW	0	0	0	0.0%	0	0	0	0.0%
Subtotal	71	0	71	0.0%	72	0	72	0.0%
Special Wastes								
Ash	28	0	28	0.0%	28	0	28	0.0%
Sludges	0	0	0	0.0%	0	0	0	0.0%
Auto Bodies	0	0	0	0.0%	0	0	0	0.0%
Other Special/Bulky	62	0	62	0.0%	62	0	62	0.0%
Other Special/Diapers	29	0	29	0.0%	29	0	29	0.0%
Subtotal	118	0	118	0.0%	119	0	119	0.0%
Total Waste	1,930	255	2,185	11.7%	1,950	257	2,207	11.7%

U.C. BERKELEY LIBRARIES
C124910054